

## Facilities

The University of Sunderland provides access to outstanding, modern, state of the art facilities and dedicated, highly qualified and experienced academic and technical support staff. Extensive use is made of recently refurbished and custom-designed University teaching accommodation including lecture theatres, seminar rooms, problem-based learning centres and student computer rooms in the Science Complex. Due to recent investment, our laboratories are among the best in the north of England providing the latest fitness equipment and technology to assist you with your studies.

## Biomechanics

We can measure motion, muscle activity and forces on the body during high intensity sports and day-to-day activities of daily living. You will get to analyse movements in three dimensions using the Vicon® 3D analysis system or our 2D Dartfish® software to capture live action images and give instantaneous analysis and feedback to coaches and athletes. Our new wireless DelSys® EMG system allows muscle activity to be assessed for health and sporting performance.

## Sports Medicine

As part of learning about sports injury rehabilitation techniques, you will use sports massage and ultrasound diagnostic and treatment equipment. You can also examine balance and stability using our Biodex® stability and balance trainer and assess strength imbalances using our sophisticated Biodex® dynamometer.

## Exercise Physiology

Whether in the lab, out in the field, or in the pool, we have the equipment to investigate the demands of most sports and daily activities. Smart Speed® timing gates, Metalyser® gas analysers and our sophisticated Radox Daytona® and Monza® chemical analysers enable students to measure human performance and health in and out of the lab.

## Fitness and Conditioning Suite

In our newly refurbished gym you will find dedicated fitness and conditioning equipment that would be the envy of most modern gyms. From a wide range of cardiovascular equipment to machine and Olympic weights, you will receive hands-on teaching in a fully equipped and professional environment.



# MSc Sport & Exercise Sciences

## 1 Year Full-time, 2 Years Part-time



### For further information please contact:

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For more detailed course and application information visit our website and search the course database using the following course ID numbers:

1 year Full-time: CID1081  
2 years Part-time: CID1082

[www.sunderland.ac.uk](http://www.sunderland.ac.uk)

Scan the QR code using your smart phone





## Overview of programme

The role of sport and exercise scientists in the development of athletic performance, general fitness and health is becoming more widely recognised. Advanced skills and knowledge in the sport and exercise sciences are essential to support elite athletes and their coaches in their pursuit of top-class performance, as well as to nurture a healthier and fitter general population and to reduce the burden of chronic illness.

The MSc Sport and Exercise Sciences at the University of Sunderland is designed for those who wish to build on their undergraduate or professional experience and study sport and exercise science at a higher level. This flexible programme offers an inter-disciplinary and multi-disciplinary scientific curriculum in sport and exercise sciences. Students have the opportunity to focus their academic interests on elite sports performance or physical activity and health-related performance leading to one of three pathways:

- **Sport and Exercise Sciences**
- **Physical Activity, Health and Well-being**
- **Sports Performance**

This enables students to direct their learning towards scientific specialism in either physiology, psychology and/or biomechanics at stage 2. Through the Applied Research Methods and Data Analysis module students will develop essential research skills to prepare them for their independent research project (Dissertation) and future aspirations in research and/or doctoral studies. The programme has

been developed in conjunction with industry to maximise graduate employment and vocational opportunities.

It is intended to encourage teaching and learning through research and applied practice within the sport, health and exercise sectors. It is designed to enhance future employment through relevant work-based learning or work experience opportunities and enable students to acquire a range of transferable skills essential for their development as competent, autonomous and reflective practitioners and researchers. Opportunity exists for interested students to commence Supervised Experience, the initial stage towards professional accreditation as a Sport and Exercise Scientist through the British Association of Sport and Exercise Sciences (BASES).

Throughout students will be able to map and evidence their learning and professional development opportunities against the key competencies set through the BASES' supervised experience scheme. Many of the health-related optional modules are delivered by our colleagues in the Department of Pharmacy, Health and Well-being. The content of the Strength and Conditioning module aligns with the accreditation syllabuses of both the UK Strength and Conditioning Association (UKSCA) and National Strength and Conditioning Association (NSCA) providing excellent theoretical and practical preparation for professional accreditation in these areas.

## Career opportunities

This flexible programme is particularly suited to those intending to pursue a career in sport and exercise science, for example the management and provision of professional sport science support services to athletes or community exercise programmes, for example, cardiac rehabilitation and exercise referral. It is also suited to those who wish to pursue a research career or progress onto doctoral studies. It is expected that graduates may also find employment opportunities lecturing in further and higher education whilst others will gain employment opportunities in health promotion, sports development, leisure services or set themselves up for private practice as a personal trainer, specialist fitness instructor, strength and conditioning professional or sports coaching within the UK and internationally.

## Connections and links with organisations and industry

We have strong links with regional and national sporting organisations, with further affiliation to local hospitals, local authorities, Primary Care Trusts and health and fitness centres. A range of sports governing body courses are made accessible to students to complement their academic portfolio including:

- **Professional Football Clubs**
- **UK Athletics**
- **Cardiac Rehabilitation**
- **SkillsActive**
- **Exercise Referral**
- **Sunderland Aquatic Centre and ASA Beacon**
- **Hockey**
- **Sports Injury Clinic**

## Placements

Students will be expected to undertake 100 hours work experience or work-based learning as part of the Professional Skills module. Students will be expected to find their own work opportunities though support for this will be provided through our established links with external bodies.

## Teaching and assessment

A variety of teaching, learning and assessment strategies will be used. Students will develop their knowledge and understanding through attending lectures, problem-based learning seminars, web-based resources, small group discussions, directed learning, laboratory and practical sessions. Cognitive skills will be enhanced through lectures, discussions, peer-review of seminar presentations, debates and directed reading. Practical skills will be acquired through attending practical sessions/workshops and laboratory classes. Transferable skills will be developed through reading, group work exercises, structured and directed learning, reflection and development of case study material and work experience opportunities.

A range of assessments will be employed to assess attainment of module and programme learning outcomes. Assessment methods include essays, case studies, portfolios, oral presentations, scientific reports, practical examinations, data analyses, critical reviews, poster presentations, culminating in the write-up of an original piece of research in the form of a dissertation.



## Course content

Core and Pathway modules include:  
See diagrams opposite.

Students must choose one from two options on the Sport and Exercise Sciences pathway and two from five options on the Physical Activity, Health and Well-being pathway.

Successful completion of 60 credits leads to the award of Postgraduate Certificate (PgC), 120 credits leads to the award of Postgraduate Diploma (PgD) and completion of 180 credits, including the Research Project leads to the award of a Masters in Science (MSc).

## Entry requirements

Students will normally have achieved a 2:2 or above classification in a sport-related degree. Students who hold a non-sport related degree will be considered on a case-by-case basis and may be required to submit a portfolio of evidence to demonstrate essential fundamental scientific knowledge and experience relevant to the study of sport and exercise sciences.

Due to the nature of the programme, which includes compulsory active engagement in at least 100 hours work experience, all students will be required to complete a criminal records bureau enhanced disclosure check prior to commencement of the compulsory Professional Skills and Practice module.

