SPORT AND EXERCISE SCIENCE
BSc (Hons)
WHY STUDY SPORT AND EXERCISE SCIENCE?

How does our body respond to a single exercise session and adapt to training? What influences our participation in physical activity and the ability to benefit from it? How can physical activity affect our health and wellbeing? How can we refine the efficiency of body movements for sport, exercise and clinical performance? How can we use Sport Psychology to enhance athlete performance and mental health?

The UK Sports University of the Year (The Times and Sunday Times Good University Guide 2020) brings together the Faculty of Health Sciences and Sport and the Faculty of Natural Sciences to jointly deliver this degree course. Studying biological sciences teaches you the disciplines underpinning Sport and Exercise Science, develops your knowledge of scientific methods and explains the role of exercise and training in improving health and athletic performance.

COURSE DETAILS

The Sport and Exercise Science programme provides students with the knowledge and experience to go on and work in areas such as Sport, Health or Biomedical Science disciplines, or to pursue a career in research or teaching. The themes covered in the programme include modules in the following areas:

HUMAN ANATOMY AND PHYSIOLOGY
Students will study the structure and function of the major physiological systems in humans including exploration of the response of humans to particular stimuli and integrated understanding of physiological control mechanisms.

BIOMECHANICS AND MOTOR CONTROL
Students will be introduced to the basic anatomy of the human musculoskeletal system and biomechanics of human movement including assessment of gait and factors influencing control of muscle movements in relation to sport and ageing populations.

PSYCHOLOGY
In various modules students will be introduced to psychological techniques that can be used to improve performance in competitive sport, and to promote behaviour change to increase physical activity and reduce sedentary time.

SPORTS MEDICINE AND NUTRITION
Various modules in the programme provide an understanding of the role of exercise and nutrition in developing a healthy lifestyle and consider the other medical aspects related to diet and exercise that are important for maintaining health while participating in sport and exercise.

PHYSIOLOGY OF SPORT AND EXERCISE
In various modules, students will develop an understanding of the regulation and integration of multiple physiological systems during exercise. These modules cover the cardiovascular and respiratory systems, neuromuscular function and skeletal muscle metabolism and detailed exploration of how these systems/pathways respond and adapt to exercise and environmental stimuli.

REASONS TO CHOOSE THIS COURSE

1. STAFF EXPERTISE
Teaching is delivered by internationally recognised staff with academic and practical expertise stretching across the whole sport and exercise sector.

2. EXCELLENT FACILITIES
We have a suite of research and performance analysis laboratories and world-class facilities used by our Olympic athletes and sport novices alike.

3. SHAPED BY CURRENT RESEARCH
Our course content is underpinned by the most recent and rigorous scientific research compiled by active scientists across the fields of physical activity, exercise and performance, molecular control mechanisms, non-communicable diseases, epigenetics and genetics.
MINIMUM REQUIREMENTS

YEAR 1 ENTRY – FOUR-YEAR HONOURS

SQA Highers:
- AABB – one sitting
- AAAB – two sittings

GCE A-levels:
- BBB

IB Diploma:
- 32

BTEC (Level 3):
- DDM

Essential subjects:
To include one of Biology, Chemistry, Mathematics or Physics.

OTHER QUALIFICATIONS

Scottish HNC/HND:
Minimum entry Bs in graded unit. Advanced entry: Please consult the website for details.

Essential subjects:
As listed above or equivalent.

Access courses and other UK/EU and international qualifications are also welcomed

ADDITIONAL INFORMATION

General entry requirements apply. Please visit: stir.ac.uk/av

PART TIME AND STUDY ABROAD OPTIONS AVAILABLE

SPORT & EXERCISE SCIENCE
stir.ac.uk/53

APPLIED EXERCISE PHYSIOLOGY
Students will gain both an understanding and practical experience of laboratory-based exercise physiology assessments for athlete performance assessment as well as understanding functional capacity in patient populations.

CELL AND MOLECULAR PHYSIOLOGY
Throughout the degree, students will encounter an in-depth account of the structure and function of animal cells, focusing on the roles of organelles in specific aspects of cellular function, discuss how hormones influence cellular activity through receptor binding and the activation of signal transduction pathways and develop practical skills in modern molecular biological techniques.

Students will gain a broad perspective of these themes throughout their degree programme and in the final year can specialise with chosen readings modules leading to the final semester when an independent research project will be completed.

WHY CHOOSE STIRLING?

We are Scotland’s University for Sporting Excellence, a designation from the Scottish Government in recognition of our continued contribution to the development of sport in Scotland.

Our sport-centred campus features a suite of laboratories for research and performance analysis, as well as a 50m swimming pool, a golf course, ten tennis courts and seven sports pitches.

We are ranked 1st in Scotland and top 5 in the UK for good sport facilities (Times Higher Education Student Experience Survey 2018) and top 5 in Scotland for Sports Science (The Guardian University Guide 2020).

Find out more at stir.ac.uk/sport-at-stirling

“Stirling University is known for its sporting excellence so was my first choice both for my studies and to continue my swimming career.

It is a fantastic environment to study in, with great support from the lecturers, and excellent facilities.

In my final year here I got my gym instructor and personal trainer qualifications. Combined with my degree in Sport and Exercise Science, I now have lots of opportunities for my future career.”

Danielle Joyce
BSc (Hons) Sport and Exercise Science

TOP 15 IN THE UK FOR SPORTS SCIENCE
The Complete University Guide 2019
CAREER OPPORTUNITIES
Careers in the sport sector account for around three percent of all jobs in Scotland according to a recent study by Cambridge Econometrics. Students who graduate in Sport and Exercise Science are prepared for the many career opportunities within sport and biosciences.

Graduates have gone on to postgraduate and research PhD study as well as pursuing careers in sport in:

- Sports science support of athletes
- Health and fitness monitoring
- Physical activity promotion
- Coaching
- Teaching
- Physiotherapy, Dietetics and other allied health professions

Employers include local authorities, commercial and voluntary sport organisations and governing bodies of sport.

“There have been many opportunities made available to me throughout this course, including getting involved in sports, internships, teaching, and research. The department has close links with local authorities and national governing bodies of sport.

I liked the fact that there was a variety of assessments as part of the course, including posters, presentations, group work, coursework and exams.

This degree has taught me the principles of Sport and Exercise Science but also how to be a critical thinker and reflective learner. These skills will be very useful after university.”

Louise Coleman
BSc (Hons) Sport and Exercise Science

CONTACT
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ARE YOU STIRLING?