

# **Department of Sport and Physical Activity**

# **Faculty of Arts and Sciences**

## **Sport & Exercise Science**

## **Pre-Entry Handbook**

## **2022-23**

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**Welcome to Sport & Exercise Science**

The key aims of the Sport & Exercise Science programme are:

* To foster the intellectual and personal development of students, through their engagement in an applied programme of sport and exercise science study, including the study of concepts associated with the cognate disciplines of physiology, biomechanics, and psychology.
* To provide the opportunity for students to critically evaluate the inter-relationships between variables associated with the main sport and exercise science disciplines, and to investigate how these may influence sports performance, physical activity, exercise, and health.
* To enable students to develop their knowledge of scientific methods of enquiry and apply this knowledge within sport and exercise science settings.
* To enable students to develop an analytical and critical mind, and to develop a creative approach to independent treatment of problems.
* To provide a variety of teaching and learning experiences and expose students to a variety of assessment methods enabling the development of self-confidence and the ability to work both independently and in a group.
* To develop the subject-specific skills required to monitor and evaluate sport and exercise performance in laboratory and/or field settings.
* To provide students with opportunities to maximise their employability in sport and exercise science and related professions by developing a range of personal and transferable skills, including communication, IT, group and independent work, and time-management.

**Programme Leader**



Dr Kelly Marrin

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### The purpose of this pre-entry handbook

This Handbook has been developed to help prepare you well to join the Sport & Exercise Science programme at Edge Hill University in September 2022. It is divided into two main sections, each with some tasks which you should complete having undertaken some research into the topics explored. The tasks address some very important things which you will be asked to discuss with your Personal Tutor during your induction week and the modules you will study in Semester 1 before the Christmas period.

It is **ESSENTIAL** that you complete all of the tasks in this Handbook **BEFORE** induction week and have the completed version available to you electronically (e.g., on email, a USB or cloud storage system) when you meet your Personal Tutor. You should complete each task electronically as indicated. You will be encouraged to reflect upon your answers to the tasks as part of your meeting and to help begin your studies at Edge Hill.

**SECTION A**

**About Your Degree and Career Aspirations**

It is important to know about your programme endorsement, what this is and what it means for you. Your degree is endorsed by The British Association of Sport & Exercise Sciences (BASES). Information on BASES can be found on the website <https://www.bases.org.uk>.

Answer the following questions:

1. **What is the main purpose of BASES?**
2. **Why is the endorsement of your degree important? What are the implications for you?**
3. **What are your career aspirations?**
4. **What do you hope to achieve from your degree in Sport & Exercise Science at Edge Hill University?**
5. **What types of jobs and careers are you able to pursue having studied Sport & Exercise Science at Edge Hill University?**

**SECTION B**

**About Your First Four Modules**

One of the first modules you will study on programme name at Edge Hill is **SPT1437 Investigating Sport & Exercise Sciences**.

This module introduces the key skills required to investigate issues within the sport and exercise sciences. The module addresses the use of online databases in order to search for published literature, allows familiarisation with the Harvard referencing system and the scientific style of writing.  Students will also learn specifically how to review scientific literature, and the different skills involved in the sport and exercise sciences (presentation skills, reflective practice and employability skills). An initiation to statistics theory is provided that includes types of data, normal distribution and statistical significance. Statistical analyses encompass preparation of descriptive graphs and tables, and basic tests for relationships and differences using SPSS software. Qualitative methods of research and data collection will also be explored.

In this module you will address topics such as employability skills, reflective practice, literature searching, academic referencing, reviewing the literature, scientific writing, presentation skills, basic statistics theory and practice, and qualitative data collection and analysis.

To help prepare you for this module, you should complete the following tasks:

1. **List the qualifications, experience and skills you have and explain how they will help you with a career in Sport & Exercise Science.**
2. **Use google scholar and find one scientific article relating to sports science and tennis. Reference this article using the Harvard referencing format including ‘Author(s) surname, initials. Year of publication. Title of article. Title of Journal. Journal volume number and issue, page numbers’.**

Another module you will study in Semester 1 is **SPT1430 Fundamentals of Sport & Exercise Physiology & Nutrition**.

In this module you study the fundamental concepts of exercise physiology and nutrition and their application in sports and exercise. The module provides students with a knowledge of both the structure and function of the various physiological systems, and the manner in which nutrition plays a part in maintaining homeostasis. The exploration of these theoretical concepts will be supplemented by additional laboratory sessions, which will assess physiological function at rest and during various modes and intensities of exercise.  The data collection will be utilised to develop competencies within the laboratory and the analysis will allow for the interpretation of data.

In this module you will address topics such as homeostasis, cardiovascular system, pulmonary system, gas transport and exchange, metabolism, energy systems, energy expenditure and nutritional requirements, muscle structure and function, and body composition.

To help prepare you for this module, you should complete the following tasks:

1. **Research and explain how you would measure blood pressure. What values represent normal blood pressure and how would you classify hypertension?**
2. **Identify the role of fat, protein, and carbohydrates in the human diet and how sporting performance may influence dietary requirements. It is recommended that you use google scholar to help you find the information.**

Another module you will study in Semester 1 is **SPT1438 Fundamentals of High Performance Sport**.

This module introduces the multidisciplinary nature of high-performance sport. It allows students to investigate the relationships between physiology, biomechanics and psychology in a performance-driven sports setting. This module aims to develop fundamental knowledge that can be advanced further in level 5.  Students will evaluate the role of a sports scientist in the optimisation of performance. A key feature of the module will be to develop the practical skills needed to work with a range of athletes and sports. Students will work individually and in groups to develop their ability to present information in an oral and written format. Furthermore, students will develop their ability to conduct pre-conditioning strategies and fitness assessments.

In this module you will address topics such as analysing the demands of different sporting activities, multidisciplinary approaches to performance enhancement, components of fitness, field-based assessments of fitness, methods of regulating exercise intensity, pre-conditioning strategies for performance enhancement, and cool down strategies.

To help prepare you for this module, you should complete the following tasks:

1. **Define what is meant by sports physiology, biomechanics, and psychology.**
2. **For a sport of your choice, explain how sports science may assist in the enhancement of performance.**

The final module you will study in Semester 1 is **SPT1439 Fundamental of Physical activity, Exercise, & Health**. This module introduces students to the relationships that exist between physical activity, exercise, and health. Students will become familiar with the current physical activity guidelines for both adults and children. The students will also develop a fundamental understanding of the role physical activity and exercise has in the promotion of physical and mental well-being. Thus, the module will take a multidisciplinary approach in investigating the way in which lifestyle choices impact on health. The module has vocational relevance for those who wish to work in the health and fitness industry, health promotion, or clinical exercise sciences. A key feature of the module will also be the development of practical skills needed to promote physical activity and the safe and effective instruction of various physical activity and exercise modes.

In this module you will address topics such as guidelines for physical activity, benefits of physical activity and exercise, barriers to physical activity and exercise, health promotion, measuring physical activity and exercise, modes of exercise and their safe instruction, contemporary issues and hypokinetic diseases.

To help prepare you for this module, you should complete the following tasks:

1. **State the current UK Government guidelines for physical activity for adults and children.**
2. **Identify some of the reasons that may stop people from taking part in physical activity and exercise.**