

# New Sports and Exercise Science degree to launch in October 2018

Dr Bob Lauder, Director of Sports Science, Lancaster Medical School, Lancaster University

Dr Michelle Swainson, Lecturer in Physiology, Lancaster Medical School, Lancaster University

As Director of Sport Science, I am excited to update you on recent course developments in Lancaster Medical School (LMS). As a part of the development and expansion of the School and the Faculty of Health and Medicine a new undergraduate degree in Sports and Exercise Science will be launched in October 2018. Although this is a busy domain with degrees offered by other providers, we believe that LMS can offer a distinctive degree scheme which will be attractive to the best candidates.

Sport and Exercise Science continues to be one of the most popular degree programmes in the UK. Historically, the focus of courses and student interest has largely been on sports performance, with a vision to work with elite athletes and help them to be the best they can be. This will always be a significant component, but there has been a shift to incorporate more content around the role of exercise and lifestyle for health. Our new Sports and Exercise Science degree is designed to meet the needs of a growing sector and its increasing demand for scientists to research and develop effective training and nutritional approaches to generate high-performing athletes, as well as addressing the public health agenda of exercise, physical activity and lifestyle medicine for disease management.

The new scheme has been designed to deliver a Sports and Exercise Science degree within LMS, of which we will be first institution in the North West to do this. Using human performance as a core topic, students will study a range of subjects including physiology, anatomy and biomechanics, psychology, nutrition and medicine within the contexts of sports, exercise and health. They will also study the bioscience, which underlies human performance in athletic, clinical and general populations. To conduct experimental work, develop practical skills and enrich knowledge in the field students will have access to our Clinical Anatomy Learning Centre, as well as the Lancaster University Sports Centre, and our physiology and biomechanics laboratories housed in the newly developed, custom-designed and purpose-built Human Performance Laboratory.

We hope to attract and recruit students who want to develop an evidence-based, analytical approach to the subject to provide expert advice and who can become the sports and exercise science researchers and practitioners of the future. Students will enjoy strong clinical and research-led content via strong contribution from clinicians, as well as a range of bioscientists, sports and exercise physiologists, anatomists and sports, exercise and health sector professionals. We welcome readers to get in touch if you would like to express an interest to be involved in teaching and/or research within this exciting area.

We are committed to ensuring our graduates benefit from being part of LMS, especially as the exercise sciences are becoming more highly valued within the fields of public health and medicine. Through psychology modules, they will develop a theoretical and practical knowledge of behaviour change strategies to motivate individuals and initiate changes in exercise and lifestyle habits, as well as modules on exercise prescription and referral. This is especially important as the UK has soaring levels of physical inactivity and lifestyle-related conditions, as well as a growing ageing population.

Examples of how exercise can impact our population health, and help get communities and patients active include the smartphone applications such as “Couch25k” and “Active 10” released by Public Health England in August 2017.

Aside from the course developments and teaching related activities associated with the course, we are keen to build a Sport and Exercise Science research profile within LMS. Two colleagues that have joined us – Dr Michelle Swainson and Dr Chris Gaffney – have considerable experience studying, researching and working within this field. They are both very keen to work with the Trust and the local communities to share research findings, as well as to engage you in our research from both a prevention and management perspective.

To give you an insight into what a Sport and Exercise Scientist could be involved in Michelle showcases a snapshot of her career journey within sport and exercise physiology.

“I completed my BSc (Hons) Sport and Exercise Science degree and knew very quickly that physiology was the discipline I wanted to pursue so I engaged in a number of research activities. These included providing sport science support testing to a group of Army personnel who were preparing to climb Mount Everest via the West Ridge, as well as field-based fitness testing for the RFL Youth Development programme. I started an MSc in Exercise Physiology alongside providing physiological support to the GB Wheelchair Tennis, Basketball and Rugby teams, and GB Women’s Hockey. One of my biggest accomplishments in sport science was investigating cooling strategies for the GB Wheelchair Tennis team in preparation for the Beijing 2008 Olympics, this is essential for those with spinal cord injuries that cannot sweat below the level of their injury and consequently overheat and fatigue – thankfully we came back with one Gold and one Bronze medal!

... However, I took a change in direction and started to focus more on exercise science and preventive health, working as a physiologist at Nuffield Health. This was where I experienced the UK obesity and inactivity epidemic first-hand, and young-to-middle aged “disease-free” adults exhibiting risk factors usually associated with older adults. This was then the focus of my PhD where I investigated the associations between fitness, fatness and global cardiovascular disease risk in apparently healthy adults.

... Most recently, I have been able to tie the two together as I am contributing to the cardiovascular health assessment of retired rugby players in a global study that has potential implications for sports medicine and health promotion. I hope to provide students with a similarly diverse and exciting journey through the Sport and Exercise Sciences.”

We are excited to be launching this new degree and we believe that this new addition to the portfolio of schemes of study offered by LMS aligns well with the vision for the development of the division and for the Faculty. In addition we believe that the scheme will contribute to health and wellbeing more widely.

If you are interested in knowing more about our new degree, or in exploring ways that your work can connect with the new degree – please do get in contact.