

# There is a very big difference between Sport Science, Physiotherapy and Sport and Exercise Medical Sciences.

**Make sure you understand the differences before you select your programme! Here is some useful information to help inform your decision.**



Division of Surgery  
and Interventional Science

What is Sport and Exercise Medical Sciences, and how does it differ from traditional Sport Science programmes?			
	Sport and Exercise Medical Sciences (SEMS) at UCL	Sport Science	Physiotherapy
<b>An overview</b>	SEMS is a novel clinically orientated degree program in which students will learn about human body systems in health and disease, as well as during sport and exercise performance. Students will learn how physical activity can be prescribed to treat and prevent disease in patients.	A Sport Science course will cover all scientific aspects of sport, underpinning the processes that influence sport and exercise performance in healthy individuals.	Physiotherapy builds on the understanding of human anatomy and physiology, predominantly related to the treatment and management of injuries and musculoskeletal conditions.
<b>What do the courses cover?</b>  (this is a general overview, make sure you check the specific modules for each university before selecting a programme)	<ul style="list-style-type: none"> <li>• Foundations of medicine and science, covering all human anatomy, physiology, pathology and disease mechanisms, diagnostics and treatment principles</li> <li>• Sport and exercise physiology</li> <li>• Exercise medicine and prescription</li> <li>• Public health and health economics</li> <li>• Psychology and behaviour change strategies</li> <li>• Performance optimisation</li> <li>• Sport nutrition</li> <li>• Strength and conditioning for both healthy and clinical populations</li> <li>• Assessment of sports injuries and biomechanics</li> <li>• Injury prevention and injury rehabilitation</li> <li>• Research project</li> <li>• Scientific skills including statistics, lab techniques, performance testing equipment and clinical trails</li> </ul>	<ul style="list-style-type: none"> <li>• Muscle anatomy</li> <li>• Exercise physiology</li> <li>• Biomechanics</li> <li>• Sport psychology and sociology</li> <li>• Nutrition and Supplementation</li> <li>• Coaching practice</li> <li>• Sport analysis</li> <li>• Research Project</li> <li>• Scientific skills including statistics, and use of testing equipment in the lab</li> </ul>	<ul style="list-style-type: none"> <li>• Assessment, structure and function of human movement</li> <li>• Pathology and Rehabilitation</li> <li>• Health Promotion</li> <li>• Neuromusculoskeletal dysfunction</li> <li>• Neurological Rehabilitation</li> </ul>
<b>How is it taught?</b>	<ul style="list-style-type: none"> <li>• Lectures and seminars</li> <li>• Laboratory practicals</li> <li>• Exercise and performance assessment in the sports lab</li> <li>• OSCEs (practical assessment of movement and injury)</li> <li>• Research project</li> <li>• Transferrable skills</li> <li>• Clinical Placement (some universities)</li> </ul>	<ul style="list-style-type: none"> <li>• Lectures and seminars</li> <li>• Exercise and performance assessment in the sports lab</li> <li>• Research project</li> <li>• Transferrable skills</li> </ul>	<ul style="list-style-type: none"> <li>• Lectures and seminars</li> <li>• Research project (some universities)</li> <li>• Transferrable skills</li> <li>• OSCEs (practical assessment of movement and injury)</li> <li>• Clinical placement</li> </ul>

<b>What are the career progressions from the BSc?</b>	<ul style="list-style-type: none"> <li>• Performance Coach</li> <li>• Health adviser</li> <li>• Exercise physiologist</li> <li>• Researcher in sport or in public health</li> <li>• Exercise prescription and facilitation for chronic disease in the NHS</li> <li>• Allied healthcare industry e.g. pharmaceuticals, nutrition, behaviour change, clinical trials</li> <li>• Public health and policy leadership</li> </ul>	<ul style="list-style-type: none"> <li>• Performance Coach</li> <li>• PE teacher</li> <li>• Personal trainer</li> <li>• Health adviser</li> <li>• Sport analyst</li> <li>• Exercise physiologist</li> <li>• Biomechanist</li> <li>• Researcher in sport</li> </ul>	<ul style="list-style-type: none"> <li>• Physiotherapist</li> <li>• Intensive care</li> <li>• Mental Health</li> <li>• Research in public health</li> </ul>
<b>What are the possible academic progressions?</b>	MSc +/- PhD <ul style="list-style-type: none"> <li>• Sport psychology</li> <li>• Physiology or performance</li> <li>• Sport management</li> <li>• Sport analysis</li> <li>• Sport nutrition</li> <li>• Competitive programmes in any aspect of medicine, such as cancer, immunology, surgery</li> <li>• Allied healthcare related degrees, such as bioengineering, business, nutrition, psychology, sociology</li> <li>• NHS scientist programmes</li> </ul>	MSc +/- PhD <ul style="list-style-type: none"> <li>• Sport psychology</li> <li>• Physiology or performance</li> <li>• Sport management</li> <li>• Sport analysis</li> <li>• Sport nutrition</li> </ul>	MSc +/- PhD <ul style="list-style-type: none"> <li>• Sport medicine</li> <li>• Physiotherapy</li> </ul>
<b>Is it offered at UCL?</b>	Yes, following the success of our iBSc and MSc Sport Medicine programmes, UCL created a new 3 year BSc in Sport and Exercise Medical Sciences in September 2019.	No, UCL does not offer a BSc in Sport Science. But it does offer an MSc in Sports Medicine, Exercise and Health, which is available for students that hold a BSc in Sport Science, and 1 year of clinical experience.	No, UCL does not offer a BSc in Physiotherapy. But it does offer an MSc in Sports Medicine, Exercise and Health, which is available for students that hold a BSc in Physiotherapy, and 1 year of clinical experience.
<b>Why choose SEMS at UCL?</b>	The Institute of Sport, Exercise and Health (ISEH) at UCL is a world leading institute for teaching, training and research in Sport Medicine. The ISEH, where the BSc is taught, offers an exciting collaborative environment, bringing together partnerships with the likes of the British Olympic Association (BOA), English Institute of sport (EIS), the International Olympic Committee (IOC), UCL and the NHS. You will learn from the expertise of renowned leading medical professionals and sport specialists and scientists that work with world class athletes as well as patients.		

<b>Sport and Exercise Medical Sciences (SEMS)</b>	<b>Sport Science</b>	<b>Physiotherapy</b>
<p>UCL's SEMS programme is unique: our students take the course as part of our Applied Medical Sciences (AMS) programme, where they gain a very strong clinical understanding of how the body works in health and in disease. In addition, they receive sport-specific modules with experts at the Institute of Sport, Exercise and Health (ISEH), which is world leading in teaching, training and research in Sport Medicine.</p> <p>This degree allows students to gain expertise in how exercise impacts the body in both health and disease: for the prevention and management of disease, for the prevention and rehabilitation of injuries and for performance optimisation in elite athletes.</p>	<p>Sport Science prepares students to work with healthy individuals, including performance analysis, coaching, psychology, sociology, sport analysis etc. Sport Science normally focuses on the analysis and optimisation of performance; some programmes offer a basic overview of exercise</p> <p>This degree prepares students to work in the sport and exercise industry, primarily focusing on healthy individuals.</p>	<p>Physiotherapy builds on the understanding of human anatomy and physiology, predominantly related to the treatment and management of injuries and musculoskeletal conditions. Some physiotherapy programmes offer a basic understanding of exercise as a form of therapy, but not for performance optimisation.</p> <p>This degree prepares students to work in a therapeutic environment.</p>