Sport and Exercise Medical Sciences (SEMS) is a novel degree program that bridges traditional biomedical science and sports science degrees with the growing medical specialty of SEM. You will learn about: human body systems in health and disease as well as in exercise performance; exercise to prevent and treat medical conditions; human performance optimisation; assessment, management and prevention of sport injuries; and critical research skills.

### Degree structure

In each year of your degree you will take a number of individual modules, normally valued at 15 or 30 credits, adding up to a total of 120 credits for the year. Modules are assessed in the academic year in which they are taken. The balance of compulsory and optional modules varies from programme to programme and year to year. A 30-credit module is considered equivalent to 15 credits in the European Credit Transfer System (ECTS).

In each year of your degree you will take a number of individual modules, normally valued at 15 credits (equivalent to 15 credits in the European Credit Transfer System (ECTS). Up to eight modules are taken and assessed in each academic year, adding up to a total of 120 credits for the year. Modules are assessed in the academic year in which they are taken.

The programme begins with the foundations of human biology and medicine, covering how the body works, what goes wrong in disease and how to treat it; students will then be introduced to how the body responds during exercise.

In year two the foundations of sport and exercise medicine are taught, from the principles of exercise training and performance optimisation, to the behavioural psychology and skills to promote appropriate physical activity for health and in disease. Students learn essential medical research and statistical skills to start their research project. There are also optional modules.

Year three comprises the research project, and modules covering exercise prescription, sports nutrition, assessment and management of musculoskeletal and sports injuries, their rehabilitation and prevention.

### Key information

#### Programme starts
September 2020

#### Location
London, Bloomsbury

### Degree benefits

- SEMS is a unique exciting cross-faculty programme designed to turn top students of today into leading health professionals and scientists of tomorrow.
- SEMS will ground students in the medical sciences with a focus on exercise medicine, sports injuries, human health and performance, and disease, leading to careers across healthcare, industry, academia and elite sport.
- You will be taught by leading scientists, clinicians, and academics at the prestigious Bloomsbury and Hampstead campuses.
- There are opportunities to learn alongside peers on related programmes, and collaborate on research across UCL, the Institute of Sport Exercise and Health and its partners including the International Olympic Committee, the English Institute of Sport, and University College London Hospitals.

### Year One

**Core or compulsory module(s)**

- Foundations in Health and Disease
- Cardiovascular and Respiratory Function in Health and Disease
- The Gut, Liver and Drug Metabolism
- Kidneys, Hormones and Fluid Balance
- Infection, Inflammation and Repair
- Musculoskeletal Systems in Health and Disease
- Sport & Exercise Physiology
- Data Interpretation and Evaluation of Science

### Year Two

**Core or compulsory module(s)**

- Molecular Basis of Disease
- The Nervous System
- Pharmacology and Drug Action
- Functional Anatomy and Medical Imaging
- Health and Behaviour
- Muscle Physiology and Sports Strength and Conditioning
- Statistics for Medical Scientists

**Optional modules**

- You will select one module from the following options:
- Introduction to Clinical Trials
- Health Economics
- Bioscience & Society: Public engagement, policy and funding
YEAR THREE

Core or compulsory module(s)
- Exercise Medicine
- Sports Nutrition
- Principles of Tissue Injury, Healing and Rehabilitation
- Assessment of sports injuries and biomechanics
- Sports injuries in elite sport and prevention strategies
- Research Project

Your learning
A wide range of teaching strategies are employed to suit different learning styles, but independent study outside of taught time is an essential component of adult learning. Small group tutorials predominate, used to explore students’ understanding and application of lecture-based and online interactive learning. Lab practicals are used for experimental work as well as clinical skills teaching.

Assessment
Assessment methods include online and written examinations, including multiple-choice or short-answer question format; coursework in the form of written assignments, oral and poster presentations; practical skills assessment; and online participation. The dissertation is written as an academic paper aiming for peer-reviewed academic publication.

Your career
The prestige of UCL and our allied sports institutes stands SEMS graduates in good stead to progress to a host of careers that require a sound understanding of medicine and science, from patient healthcare and industry such as pharma and nutrition, through to elite sport or academia including research and clinical trials.

Students would also be well placed to apply for higher research degrees, such as an MSc, PhD and NHS scientist programmes, or vocational degrees such as medicine or physiotherapy.

Your application
Application for admission should be made through UCAS (the Universities and Colleges Admissions Service). Applicants currently at school or college will be provided with advice on the process; however, applicants who have left school or who are based outside the United Kingdom may obtain information directly from UCAS.

Prospective students will be academically able, and also demonstrate excellent interpersonal skills and professional behaviours that future public- or patient-facing careers would require. We will be looking for examples of these skills in personal statements and in references. Students should demonstrate the value of physical activity, drawing on their own experiences.

We will use your predicted or achieved academic qualifications, your personal statement and your reference to decide whether to offer you a place.
Entry requirements

**A LEVELS**

**Standard Offer:** AAB. Biology and either Chemistry, Mathematics or Physics required.

**Contextual Offer:** BBB. Biology and either Chemistry, Mathematics or Physics required.

**GCSE**

English Language and Mathematics at grade B or 6. For UK-based students, a grade C or 5 or equivalent in a foreign language (other than Ancient Greek, Biblical Hebrew or Latin) is required. UCL provides opportunities to meet the foreign language requirement following enrolment, further details at: www.ucl.ac.uk/ug-reqs

**IB DIPLOMA**

**Standard Offer:** 36 points. A total of 17 points in three higher level subjects, including Biology and either Chemistry, Mathematics or Physics, with no score below 5.

**Contextual Offer:** 32 points. A total of 15 points in three higher level subjects, including Biology and either Chemistry, Mathematics or Physics, with no score below 5.

**CONTEXTUAL OFFERS – ACCESS UCL SCHEME**

As part of our commitment to increasing participation from underrepresented groups, students may be eligible for a contextual offer as part of the Access UCL scheme. For more information see www.ucl.ac.uk/prospectus

**OTHER QUALIFICATIONS**

UCL considers a wide range of UK and international qualifications for entry into its undergraduate programmes. Full details are given at: www.ucl.ac.uk/otherquals

**UNDERGRADUATE PREPARATORY CERTIFICATES (International foundation courses)**

UCL Undergraduate Preparatory Certificates (UPCs) are intensive one-year foundation courses for international students of high academic potential who are aiming to gain access to undergraduate degree programmes at UCL and other top UK universities.

Typical UPC students will be high achievers in a 12-year school system which does not meet the standard required for direct entry to UCL.

For more information see: www.ucl.ac.uk/upc.

**TUITION FEES**

The fees indicated are for undergraduate entry in the 2020/21 academic year. The UK/EU fees shown are for the first year of the programme at UCL only. Fees for future years may be subject to an inflationary increase. The Overseas fees shown are the fees that will be charged to 2020/21 entrants for each year of study on the programme, unless otherwise indicated below.

// UK & EU: £9,250 (2020/21)

// Overseas: £26,490 (2020/21)

Full details of UCL's tuition fees, tuition fee policy and potential increases to fees can be found on the UCL Students website.

**Additional costs**

The core textbooks for all modules are available in UCL Libraries (including the Royal Free library), and journal articles in your reading lists are available to download electronically. Some students may wish to purchase their own text books or print course documents and if you would like to do this, then we suggest allowing approximately £200 per year for this. In addition students will be required to pay for their own travel costs to placements or project locations, depending upon the project.

**FUNDING**

Various funding options are available, including student loans, scholarships and bursaries. UK students whose household income falls below a certain level may also be eligible for a non-repayable bursary or for certain scholarships. Please see the Fees and funding pages for more details.

**CONTACT**

Atalanta Hersey

Email: a.hersey@ucl.ac.uk

Telephone: 

Department: Division of Surgery and Interventional Science

**Brexit**

For up-to-date information relating to specific key questions following the UK’s decision to leave the EU, please refer to: www.ucl.ac.uk/brexit

**Disclaimer**

This information is for guidance only. It should not be construed as advice nor relied upon and does not form part of any contract. For more information on UCL’s degree programmes please see the UCL Undergraduate Prospectus at www.ucl.ac.uk/prospectus