



H·Y·M·S

THE HULL YORK
MEDICAL SCHOOL

MSc in HUMAN ANATOMY AND EVOLUTION

[www.hyms.ac.uk/
human-anatomy-evolution](http://www.hyms.ac.uk/human-anatomy-evolution)

CONTENTS

- 1 Why Choose HYMS?
- 2 Programme Overview
- 3 Programme Timelines
- 4 Overview of Programme Modules and Electives
- 5 Teaching, Learning and Assessment
- 6 Student Support
- 7 Careers
- 8 Entry Requirements and How to Apply
- 9 Fees and Funding



1.

Why Choose HYMS?

A WORLD CLASS MEDICAL SCHOOL

The MSc is based in the Centre for Anatomical and Human Sciences at Hull York Medical School (HYMS) on the University of York campus and co-badged with the Department of Archaeology at the University of York. Students on our programme are taught by expert tutors who are at the cutting-edge of knowledge and research in their fields.

WE STRIVE FOR EXCELLENCE IN OUR RESEARCH

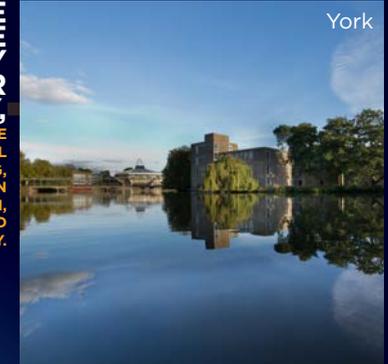
85%

OF HYMS RESEARCH IS WORLD-LEADING OR INTERNATIONALLY EXCELLENT (REF 2014)

WHILE THE DEPARTMENT OF ARCHAEOLOGY AT YORK WAS RANKED 4TH AMONGST UK ARCHAEOLOGY DEPARTMENTS AND 2ND FOR THE WIDER SOCIETAL IMPACT OF ITS RESEARCH (REF 2014).

YOU WILL HAVE ACCESS TO A RANGE OF LABORATORY FACILITIES FOR ANATOMICAL STUDY,

INCLUDING 3D SURFACE SCANNING, MEDICAL IMAGING, 3D PRINTING, HUMAN AND NON-HUMAN CADAVERIC DISSECTION, MATERIALS TESTING AND ELECTROMYOGRAPHY.



YORK

HULL

WE HAVE A DEDICATED COMPUTER SUITE

WITH A FULL RANGE OF SOFTWARE, INCLUDING GENERIC AND SPECIALIST ANATOMY, VIRTUAL ANTHROPOLOGY, MODELLING AND ENGINEERING PACKAGES AND COMPUTING SUPPORT FROM HIGHLY EXPERIENCED STAFF.

YOU WILL GAIN MEMBERSHIP TO THE INTERDISCIPLINARY PALAEO CENTRE AT THE UNIVERSITY OF YORK.

PALAEO BRINGS TOGETHER YORK'S WORLD-LEADING EXPERTISE IN EVOLUTIONARY ANATOMY, ANCIENT DNA, BIODIVERSITY, PSYCHOLOGY, PALAEOENVIRONMENTAL STUDIES, PREHISTORY AND GEOCHRONOLOGY. REGULAR MEETINGS RESEARCH MAJOR QUESTIONS IN HUMAN EVOLUTION.

2.

Programme Overview

This taught Masters course offers a unique opportunity to study human anatomy from an evolutionary perspective. This programme will provide you with a detailed understanding of human and primate evolution, focusing on anatomy and morphology and their interfaces with ecology and behaviour.

You will acquire practical and theoretical knowledge of cutting edge tools for morphometrics, imaging, virtual modelling and functional simulation used to interpret anatomical variation and the fossil record. In addition, you can gain practical knowledge of anatomy through dissection of human cadaveric material as well as comparative anatomical study. You will investigate how the anatomy of the human body has developed over time; the biology of bone, teeth and soft tissue; explore the physical capabilities of early humans and other Primates and undertake a practical research project of your choice, in consultation with your supervisor; to investigate a current question in evolutionary anatomy.

This MSc is an attractive option for those wishing to combine anatomical and archaeological approaches to the study of human anatomy and evolution.



On this course you will gain hands-on practical experience of human evolutionary anatomy using cutting-edge techniques for the analysis of musculoskeletal form, function and the evolution of our species and active lab-based research that will broaden your experience and provide exciting opportunities for your research training.



Dr Laura Fitton, Programme Director



Unique opportunity to combine evolutionary anatomy with state-of-the-art virtual modelling techniques, statistical analysis of form and virtual biomechanical simulations

Gain experience working with and dissecting cadaveric specimens

Use advanced equipment including 3D visualisation and modelling software, materials testing, surface scanning, medical imaging and 3D printing

Obtain a sound biological underpinning to interpret the anatomical fossil record

Choose a programme to suit your lifestyle and career goals

Take part in cutting-edge science and build essential practical skills

Receive career and research guidance from staff with significant experience in the sector

HOW LONG WILL IT TAKE?

1 year full-time
2 years part-time

WHERE WILL I STUDY?

Teaching will be delivered by HYMS and Archaeology faculty staff at the University of York

3.

Programme Timelines

There are three core modules and a choice of eight electives (alongside a selection of archaeology skill modules) totalling 100 credits. An additional 80 credits will be gained through an independent research project.

1 Year full-time

TERM 1	TERM 2	TERM 3
<p>CORE MODULE</p> <p>Primate Ecology and Evolution (20 credits)</p> <p>Hard Tissue Biology (20 credits)</p>	<p>CORE MODULE</p> <p>Human Evolutionary Anatomy (20 credits)</p>	
<p>ELECTIVES</p> <p>Basic Skills in Virtual Anatomies (5 credits) * & Basic Skills in Geometric Morphometric (5 credits) * or Becoming Human: Evolving mind and societies (20 credits)</p>	<p>ELECTIVES</p> <p>Functional and Musculoskeletal Anatomy (20 credits) or Special Topics in Musculoskeletal Anatomy (20 credits) or Ancient Biomolecules (20 credits) Advanced Skills in Virtual Anatomies (5 credits) *+ & Advanced Skills in Geometric Morphometric (5 credits) *+</p>	
		<p>RESEARCH PROJECT (80 credits)</p>

* Must be taken in conjunction with additional skills modules taken throughout the programme (totalling 20 credits)

+ Additional skills modules may be available through the Department of Archaeology



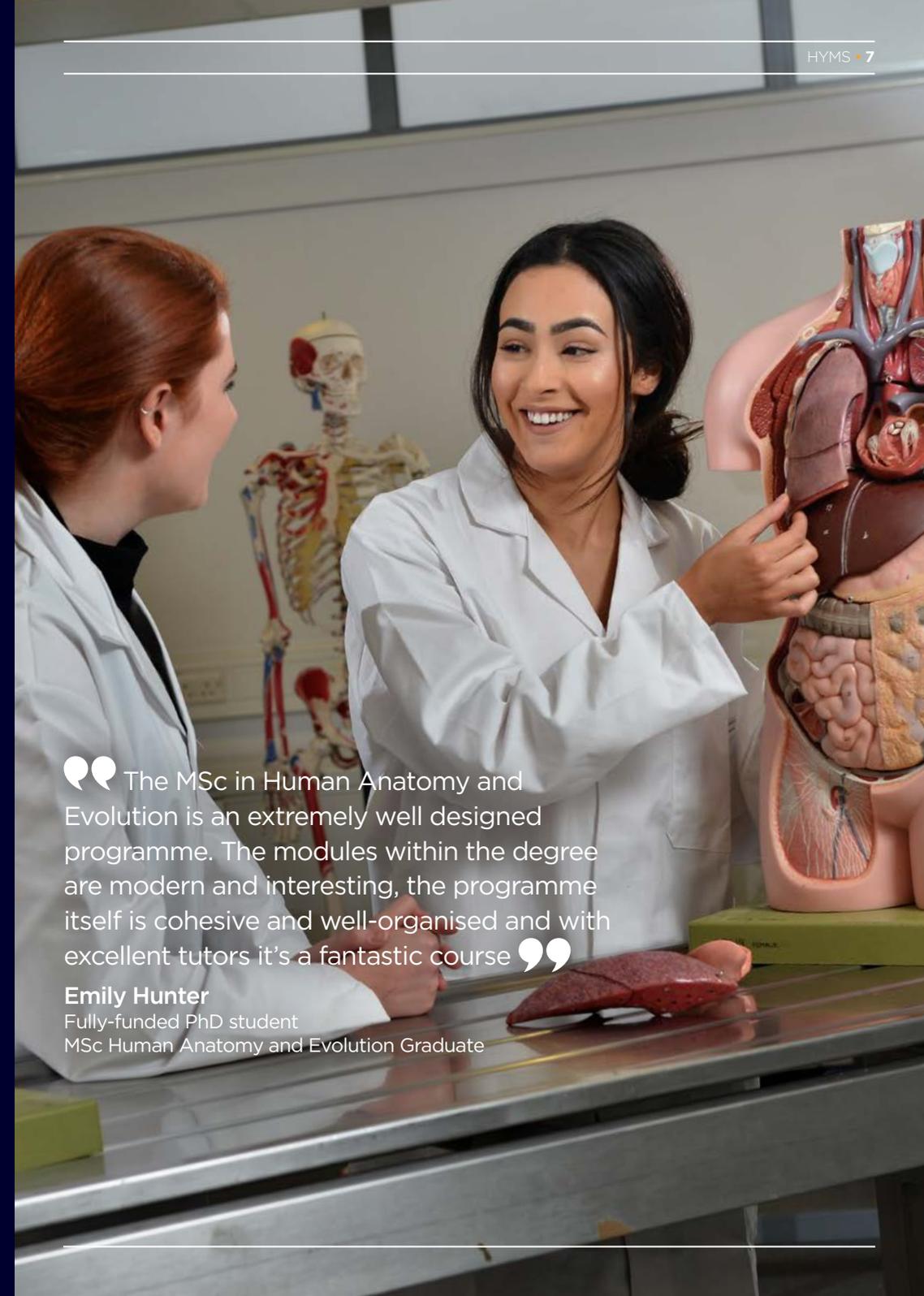
2 Years part-time (example of programme structure**)

YEAR	TERM 1	TERM 2	TERM 3
Y1	CORE MODULE Primate Ecology and Evolution (20 credits) Hard Tissue Biology (20 credits)	CORE MODULE Human Evolutionary Anatomy (20 credits)	NO CLASSES SCHEDULED
		ELECTIVES Functional and Musculoskeletal Anatomy (20 credits) or Special Topics in Musculoskeletal Anatomy (20 credits) or Ancient Biomolecules (20 credits)	
Y2	ELECTIVES Basic Skills in Virtual Anatomies (5 credits) * & Basic Skills in Geometric Morphometric (5 credits) * or Becoming Human: Evolving mind and societies (20 credits)	ELECTIVES Advanced Skills in Virtual Anatomies (5 credits) *+ & Advanced Skills in Geometric Morphometric (5 credits) *+	RESEARCH PROJECT (80 credits)

*Must be taken in conjunction with additional skills modules taken throughout the programme (totalling 20 credits)

+ Additional skills modules may be available through the Department of Archaeology

**Alternative structures are available on the part-time model. Please contact the Programme Administrator for further options.



“ The MSc in Human Anatomy and Evolution is an extremely well designed programme. The modules within the degree are modern and interesting, the programme itself is cohesive and well-organised and with excellent tutors it’s a fantastic course ”

Emily Hunter

Fully-funded PhD student
 MSc Human Anatomy and Evolution Graduate

4.

Overview of Programme Modules and Electives

Hard Tissue Biology (20 credits, core)

You will examine the structure, function, growth and development of musculoskeletal and dental tissues. You will also understand how skeletal and dental hard tissues can be used for the recovery of information on growth, development and life history.

Primate Ecology and Evolution (20 credits, core)

You will develop an advanced understanding of primate ecology and evolution, with a focus on diet, habitat exploitation, body size, activity pattern, social behaviour, life history and community structure, gaining a broad overview of primate evolution, from the origins of the order around 65 million years ago to the present day.

Human Evolutionary Anatomy (20 credits, core)

You will gain an advanced understanding of the hominin fossil record, focusing particularly on the interpretation of anatomical material and current methods. In this module you will also examine casts and CT scans of the major fossil specimens, as well as comparative material.

Basic and Advanced Skills in Geometric Morphometrics (two 5 credit modules, elective)

In this module you will have the opportunity to work with internationally renowned specialists to gain a firm foundation in the essential theory and practice of geometric morphometrics (size and shape analysis) and how it is applied to the study of phenotypic and functional variation.

Basic and Advanced Skills in Virtual Anatomies (two 5 credit modules, elective)

This module allows students to explore the theory and practice of modern imaging, 3D modelling, 3D printing and visualisation methods ('virtual anatomies') and their application to virtual anthropology, digital reconstruction and simulation.

Functional and Musculoskeletal Anatomy (20 credits, elective)

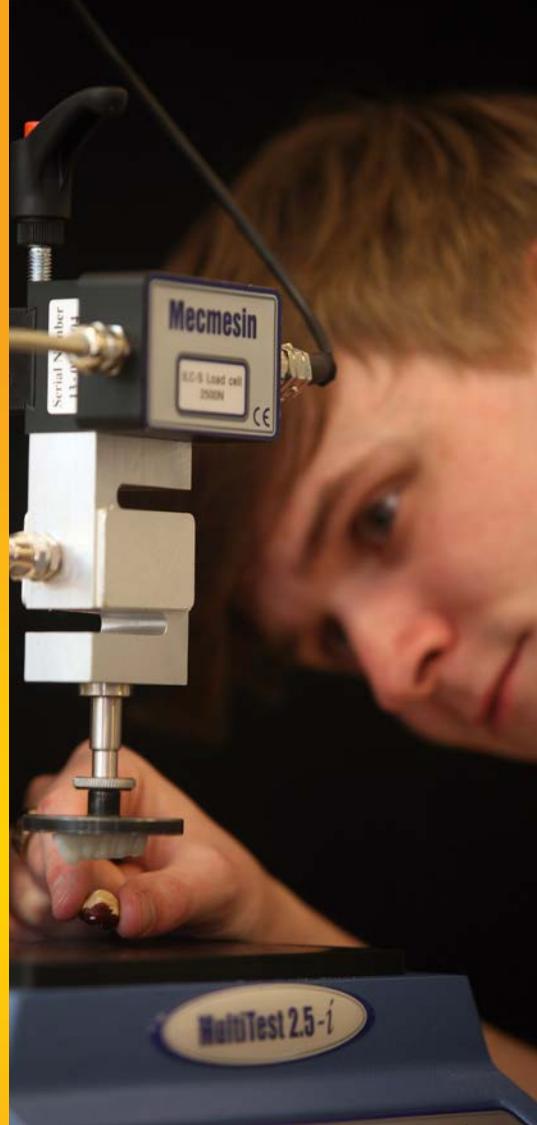
You will gain a firm foundation in human musculoskeletal anatomy from the perspectives of function and evolution. You will also explore the evolution and development of limbs, their common organisation and different functions.

Special Topics in Musculoskeletal Anatomy (20 credits, elective)

For those students with a background in anatomy, through this module you will extend your understanding and knowledge of the musculoskeletal system in relation to a specific anatomical topic. Examine human anatomy from the perspective of function and evolution, through dissection.

Becoming Human (20 credits, elective)

You will consider the fascinating question of what it means to be 'human'. You will also study the key phases in the evolution of 'humanity' and gain a critical awareness of how the evidence is interpreted.



Ancient Biomolecules (20 credits, elective)

This module is principally targeted at osteoarchaeologists, with a focus on the analysis of skeletal materials, but will more broadly appeal to anyone who is likely to encounter biomolecular data sets in the course of their research or professional career.

5.

Teaching, Learning and Assessment

With our philosophy of research-led teaching our modules are delivered via a range of teaching and learning activities including, but not limited to

- seminars
- whole class lectures
- practical labs
- practical computer based workshops
- independent study
- cadaveric dissection/prosections
- personal supervision

ASSESSMENT

Assessments include oral presentations, poster presentations, unseen written examinations, written term time essays, practical workbooks and vivas.



6.

Student Support

Choosing to study on our Human Anatomy and Evolution programme you will be part of the Centre for Anatomical and Human Sciences' (CAHS) research team at Hull York Medical School. Our academics are motivated, enthusiastic and active researchers dedicated to ensuring you receive the support you need.

At HYMS you will benefit from the resources of both Hull and York universities, from the latest IT and library services, full teaching resources and information available via the virtual learning environment and access to a suite of high spec computers and software packages. You'll have everything you need to further your development as an independent researcher.

7.

Careers

The skills and techniques you learn will position you as a leader in the field of human evolutionary anatomy. As well as providing a platform for more advanced research, this will equip you well for careers in a whole range of academic, medical and archaeological fields. Past students have gone on to work in museums, anatomy teaching, laboratory work, continued with their medical careers with a new insight into anatomy and gained fully-funded PhD positions.

8.

Entry Requirements and How to Apply

Open to strong graduates in anatomy, anthropology, archaeology, biology, psychology, zoology and other related fields. Minimum 2.1 or equivalent. IELTS 7 for applicants whose first language is not English.

The course is also well suited for intercalating medical students. For intercalating students, a minimum of 3 years of successful MBBS or comparable medical qualifications is required.

HOW TO APPLY

To apply using our online application form visit www.hyms.ac.uk/human-anatomy-evolution

9.

Fees and Funding 2017/18

Course fees may be subject to annual inflationary price increases.

TUITION FEES FOR HOME AND EU STUDENTS

Full-time **£7,350**

Part-time (2 years) **£3,675**

TUITION FEES FOR OVERSEAS STUDENTS

Full-time **£20,300**

SCHOLARSHIPS

We are pleased to be able to offer scholarships for highly motivated, exceptional students.

More information on fees and scholarships is available on the HYMS website.

www.hyms.ac.uk/human-anatomy-evolution



For Further Information

Admissions Enquiries

pgtadmissions@hyms.ac.uk

Tel: 01904 321690

 Hull York Medical School

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