Welcome to Hull York Medical School, where we deliver exceptional medical education. We will challenge you to think differently and question everything. Whatever your background, from Archaeology to Medicine, if you want a deeper understanding of human anatomy in an evolutionary context and want to develop highly sought-after research and analytical skills, then this programme is for you.
The facilities available throughout the course are second to none. The skills learnt are at the forefront of current research in human evolution, and the course provides the opportunities to apply these skills to create publication standard research.

Carolynne Roberts, MSc Human Anatomy and Evolution

On this programme, you will become a lifelong learner, developing the skills and techniques to question perceived knowledge and to push the boundaries of what we know and understand about human anatomy and evolution. You will be based in our Centre for Anatomical and Human Sciences (hyms.ac.uk/research/researchcentres-and-groups/centre-for-anatomical-and-human-sciences), which runs the programme in conjunction with the Department of Archaeology at the University of York, and is based at the York campus. Uniquely for a Masters student, you will utilise state of the art modelling and imaging techniques, usually reserved for PhD students, and have access to world-leading interdisciplinary research.

As well as being taught by and working alongside subject experts who are at the forefront of knowledge and research in their fields, you will become a member of PALAEO: Centre for Human Palaeoecology & Evolutionary Origins (york.ac.uk/archaeology/centres-facilities/palaeohub). This Centre brings together all of York’s world-leading expertise in evolutionary anatomy, ancient DNA, biodiversity, psychology, palaeoenvironmental studies, early prehistory, experimental archaeology and geochronology.

We believe this programme is truly unique and will offer you the very best education in human anatomy from an evolutionary perspective. You will gain hands-on practical experience of human evolutionary anatomy using the very best cutting edge techniques. You will conduct active lab-based research and be part of a vibrant and inclusive research community working alongside inspirational academics.

Dr Laura Fitton, Programme Director

Take a look at our programme video at hyms.ac.uk/human-anatomy-evolution
ABOUT THE PROGRAMME

Our Masters programme in Human Anatomy and Evolution provides a unique opportunity to study human anatomy from an evolutionary perspective. Unlike other similar programmes, this programme combines evolutionary anatomy, gross anatomy and the most up to date virtual modelling and anthropological techniques.

You will be taught by research-active subject experts, who are leaders in their fields. You will have unique and unparalleled learning and development opportunities working alongside academics who are world-leading experts in their field.

You will benefit from their unique expertise, allowing you to develop your own skills, knowledge and research techniques. We know from current and past students that this creates an inspiring and exciting environment in which to learn, research and collaborate.

You will have the opportunity to learn a range of highly sought-after transferable skills, including 3D modelling and visualisation, finite element analysis, geometric morphometrics, cadaveric dissection, materials testing using engineering techniques to assess form and function, surface scanning, medical imaging and 3D printing.

The breadth of knowledge and skills I have acquired are invaluable, and the support I’ve received throughout the year has allowed me to develop my interests into a research project where I can apply the methods I’ve learnt throughout the year.

Abigail O’Connell, MSc Human Anatomy and Evolution

THIS PROGRAMME IS AN IDEAL PATHWAY IF YOU’RE INTERESTED IN AN ACADEMIC CAREER AND FURTHER STUDY SUCH AS A PHD

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. You will investigate how the anatomy of the human body has developed over time; the biology of bone, teeth and soft tissue, and explore the physical capabilities of early humans and other primates. You will also undertake a practical research project of your choice, in consultation with your supervisor, to investigate a current question in evolutionary anatomy.

If you are interested in an academic career in this field, this programme is an ideal pathway to further study such as a PhD. We will help you develop as a researcher, problem-solver, critical thinker and collaborator.

This Masters is a unique opportunity to research anatomy from an evolutionary and functional perspective in an active research environment.

It is also an excellent choice for medical students, offering a fascinating insight into human variability, development and evolution. The practical skills and scientific training we deliver are especially relevant for medics interested in cranio-maxillofacial or orthopaedic surgery.

OUR HUMAN FUNCTIONAL ANATOMY MODULE PROVIDES THE OPPORTUNITY TO GET HANDS-ON EXPERIENCE OF HUMAN CADAVERIC MATERIAL AND DEVELOP DISSECTION SKILLS

If you are interested in an academic career in this field, this programme is an ideal pathway to further study such as a PhD. We will help you develop as a researcher, problem-solver, critical thinker and collaborator.

This Masters is a unique opportunity to research anatomy from an evolutionary and functional perspective in an active research environment.

It is also an excellent choice for medical students, offering a fascinating insight into human variability, development and evolution. The practical skills and scientific training we deliver are especially relevant for medics interested in cranio-maxillofacial or orthopaedic surgery.
PROGRAMME DURATION

You can choose to study full-time for one year, or part-time over two years. If you are an intercalating student you will need to opt for the full-time study option. The part-time option is ideal if you want to continue working alongside your studies.

WHERE YOU WILL STUDY

You will be based predominantly at the PalaeoHub, a shared facility between the Department of Archaeology and Hull York Medical School, at the University of York. You may be required to travel to Kings Manor in the centre of York for some elective modules.

CAREERS

As well as providing a platform for more advanced research, the programme will equip you well for careers in a whole range of academic, medical and archaeological fields.

Past students have gone on to work in research laboratories and museums, while others have pursued research careers, securing fully-funded PhD positions and entered positions in academia.

INTERCALATION

If you are considering taking a year out from your Medicine programme to intercalate, it is important to choose a programme of study that you are genuinely interested in. Studying this MSc will give you an advantage when applying for training and jobs, as well as making you a better clinician and/or academic.

YOU WILL BECOME A MEMBER OF THE PALAEO CENTRE, WHICH BRINGS TOGETHER YORK’S WORLD-LEADING EXPERTS IN AN EXCITING RESEARCH ENVIRONMENT

My understanding of human anatomy has increased, and so has my understanding of how scientific research is conducted. The practical and critical thinking skills learned will be invaluable in my future medical career.

Austyn Burkholder,
MSc Human Anatomy and Evolution
Intercalating Medicine student

Department of Archaeology ranking, REF 2014
2ND RANKED 2ND FOR SOCIETAL IMPACT OF RESEARCH

www.hyms.ac.uk
There are eight core taught modules and a choice of two electives totalling 100 credits. This allows a focussed but personalisable route to suit your interests and career goals. An additional 80 credits will be gained through an independent research project.

**CORE MODULES**

**Musculoskeletal Biology: Tissue Structure and Mechanics (20 credits)**
You will develop an advanced knowledge and understanding of skeletal and dental tissues, focusing on the structure and development of these tissues and, by introducing you to biomechanics, their function.

**Human Evolutionary Anatomy (20 credits)**
This module provides the opportunity to develop an advanced knowledge and understanding of the hominin fossil record. It focuses particularly on the interpretation of anatomical material and current methods.

**Human Functional Anatomy (20 credits)**
This module provides the opportunity to deepen your knowledge of the human musculoskeletal system from the perspective of function and evolution.

**Analysing Anatomical Variation I (5 credits)**
This module introduces you to an overview of geometric morphometrics (GM). During the course the basics of GM will be covered, including a review of key multivariate morphometric methods.

**Analysing Anatomical Variation II (5 credits)**
You will build upon knowledge gained in Analysing Anatomical Variation I to carry our more advanced studies using Geometric Morphometrics (GM).

**Virtual Anatomy and 3D Modelling I (5 credits)**
This module introduces you to the theory and practice of virtual anatomies and provides you with the basic skills needed to create 3D virtual musculoskeletal models.

**Virtual Anatomy and 3D Modelling II (5 credits)**
You will develop the skills and knowledge for advanced virtual model creation. Each week builds on the previous, allowing you to develop a virtual reconstruction in relation to particular theme.

**Research Project/Dissertation (80 credits)**
This module provides the opportunity to develop an advanced knowledge and understanding of the hominin fossil record. It focuses particularly on the interpretation of anatomical material and current methods.

**YOU WILL USE CUTTING-EDGE DIGITAL FACILITIES INCLUDING GEOMETRIC MORPHOMETRICS AND VIRTUAL ANATOMY**
**ELECTIVE MODULES**

**Becoming Human: Evolving Minds and Societies**  
(20 credits)  
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. This programme is run via the Department of Archaeology, and is subject to availability.

**Our Place in Nature**  
(20 credits)  
This module will provide you with an advanced understanding of the ecology and evolution of the group of mammals to which we belong.  
It will give a broad overview of primate evolution, from the origins of the order around 65 million years ago to the present days. The module will look at genetic and fossil evidence for primate evolution, and competing hypotheses of primate phylogeny.

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**YOU CAN LEARN HIGHLY SOUGHT AFTER SKILLS INCLUDING FINITE ELEMENT ANALYSIS, 3D MODELLING AND PRINTING, MATERIALS TESTING AND IMAGING**

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"The academic team are very knowledgeable and supportive, and the course provided me with a wide range of practical skills which have been immensely helpful for my PhD."

Emily Hunter,  
MSc Human Anatomy and Evolution
I chose this MSc in Human Anatomy and Evolution because it is so forward-thinking, and allowed me to develop skills in virtual anatomy and geometric morphometrics that are not offered at this stage anywhere else. The departmental staff are incredibly knowledgeable and supportive, and you really feel part of the team.

Jessica Ashley, MSc Human Anatomy and Evolution
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.

ONE YEAR FULL-TIME

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<th>Term 1</th>
<th>Term 2</th>
<th>Term 3</th>
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<td><strong>CORE MODULES</strong>&lt;br&gt;• Musculoskeletal Biology: Tissue Structure and Mechanics (20 credits)&lt;br&gt;• Analysing Anatomical Variation I (5 credits)&lt;br&gt;• Virtual Anatomy and 3D Modelling I (5 credits)</td>
<td><strong>CORE MODULES</strong>&lt;br&gt;• Human Evolutionary Anatomy (20 credits)&lt;br&gt;• Human Functional Anatomy (20 credits)&lt;br&gt;• Analysing Anatomical Variation II (5 credits)&lt;br&gt;• Virtual Anatomy and 3D Modelling II (5 credits)</td>
<td><strong>RESEARCH PROJECT</strong>&lt;br&gt;(80 credits)</td>
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<tr>
<td><strong>ELECTIVES</strong>&lt;br&gt;• Becoming Human: Evolving Minds and Societies (20 credits)&lt;br&gt;• Our Place in Nature (20 credits)</td>
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TWO YEAR PART-TIME (INDICATIVE TIMETABLE)

If you choose to study part-time, you will work with the Programme Director to devise a timetable to meet your needs and expectations. Here is an example of what that timetable might look like:

<table>
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<tr>
<th>Term 1</th>
<th>Term 2</th>
<th>Term 3</th>
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<tr>
<td><strong>CORE MODULES</strong>&lt;br&gt;• Musculoskeletal Biology: Tissue Structure and Mechanics (20 credits)&lt;br&gt;• Analysing Anatomical Variation I (5 credits)&lt;br&gt;• Virtual Anatomy and 3D Modelling I (5 credits)</td>
<td><strong>CORE MODULES</strong>&lt;br&gt;• Human Evolutionary Anatomy (20 credits)&lt;br&gt;• Human Functional Anatomy (20 credits)&lt;br&gt;• Analysing Anatomical Variation II (5 credits)&lt;br&gt;• Virtual Anatomy and 3D Modelling II (5 credits)</td>
<td><strong>NO CLASSES SCHEDULED</strong></td>
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<tr>
<td><strong>ELECTIVES</strong>&lt;br&gt;• Becoming Human: Evolving Minds and Societies (20 credits)&lt;br&gt;• Our Place in Nature (20 credits)</td>
<td><strong>CORE MODULES</strong>&lt;br&gt;• Analysing Anatomical Variation II (5 credits)&lt;br&gt;• Virtual Anatomy and 3D Modelling II (5 credits)</td>
<td><strong>RESEARCH PROJECT</strong>&lt;br&gt;(80 credits)</td>
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PART-TIME STUDENTS CAN DEVISE THEIR OWN STUDY TIMETABLE TO MEET THEIR INDIVIDUAL INTERESTS AND NEEDS
ENTRY REQUIREMENTS

Applicants must have previous training in anatomy, anthropology, archaeology, biology, psychology, zoology and other related fields with a minimum 2:1 (Hons) degree or equivalent.

Applicants whose first language is not English will be required to demonstrate evidence of proficiency as follows:

- IELTS: 6.5 (in the academic test with a minimum score of 6.0 in all four language competencies: listening, reading, speaking and writing).

Intercalating medical students must have successfully completed a minimum of three years of an MB BS or comparable medical qualification.

FEES AND FUNDING

TUITION FEES FOR 2021/22 ARE AS FOLLOWS:

- **UK (Home)**
  - Full-time (1 year): £9,730
  - Part-time (2 years): £4,865*

- **International and EU**
  - Full-time (1 year): £23,300
  - Part-time (2 years): £11,650*

*This is the year 1 fee. Fees for future years are subject to confirmation.

Please visit our website (hyms.ac.uk/human-anatomy-evolution) for further information on tuition fees as well as financial support available.

HOW TO APPLY

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

TEACHING, LEARNING AND ASSESSMENT

Research-led teaching is the cornerstone of our approach as we help you develop and learn on this programme. Our modules are delivered via a range of teaching and learning activities including:

- Seminars
- Whole class lectures
- Practical labs
- Practical computer-based workshops
- Independent study
- Cadaveric dissection/prosections
- Personal supervision

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

STUDENT SUPPORT

Our academics are motivated, enthusiastic and active researchers dedicated to ensuring you receive the support you need.

Postgraduate study requires a big personal commitment and this programme is no different. This Masters is intensive and challenging but ultimately hugely rewarding. In addition to the student support services at the Universities of Hull and York, we also have our own dedicated student support team providing a range of pastoral services to all our students.
FOR FURTHER INFORMATION

Admissions Enquiries:
pgtadmissions@hyms.ac.uk

Find out more
hyms.ac.uk/human-anatomy-evolution

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