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.
Hull York Medical School is a unique partnership between the Universities of Hull and York, meaning you will have access to a wealth of resources from both institutions.

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, 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. 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. We look forward to welcoming you onto this exciting programme.

Dr Laura Fitton, Programme Director

“Focusing on hard tissue biology really allows us to learn about morphology and the make-up of the human skeletal system in greater depth.”

Conagh Whitfield, MSc Human Anatomy and 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. Teaching is delivered in small groups, with a high ratio of professors to students. This means that 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.

These skills are highly sought-after in a range of industries, particularly in the fields of medical research, forensic science, and engineering.

OUR OPTIONAL DISSECTION MODULES ALLOW YOU TO GET HANDS-ON EXPERIENCE OF HUMAN CADAVERIC MATERIAL AND DEVELOP DISSECTION SKILLS

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.

We are confident that our Human Anatomy and Evolution Masters programme gives you the very best grounding possible in this unique area of anatomy in addition to developing modelling and imaging techniques, and honing research 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 and help create the opportunities you need to pursue your chosen career path.

This Masters is a unique opportunity to combine anatomical and archaeological approaches to the study of anatomy and evolution in an exciting research environment. It is also an excellent choice for medical students wishing to understand the ‘why’ behind anatomy, and apply this knowledge in a very practical way in future practice. Intercalating medical students will also develop highly transferable research and analytical skills.
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.

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, as anatomy teachers, and in laboratory research, while others have pursued research careers, securing fully-funded PhD positions.

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.

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 Masters 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

This programme will be invaluable to my future career. My understanding of human anatomy has increased, and so has my understanding of how scientific research is conducted.

Austyn Burkholder, MSc Human Anatomy and Evolution Intercalating Medicine student
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)
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)
You will gain an advanced understanding of the hominin fossil record, focusing particularly on the interpretation of anatomical material and current methods used to reconstruct past behaviours. In this module you will also examine casts and scans of the major fossil specimens, as well as study comparative extant material.

Research Project (80 credits)
You will undertake an in-depth project in a topic related to human anatomy and evolution. With the support of a tutor, you will formulate a research question, and undertake original research.
ELECTIVE MODULES

Basic and Advanced Skills in Geometric Morphometrics (2 x 5 credit modules)

In these modules 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.

Special Topics in Musculoskeletal Anatomy (20 credits)

If you have a background in anatomy, this module will allow you to extend your understanding and knowledge of the musculoskeletal system in relation to a specific anatomical topic. You will examine human anatomy from the perspective of function, comparative anatomy and evolution, through dissection.

Basic and Advanced Skills in Virtual Anatomy (2 x 5 credit modules)

These modules allow you 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. Using our high-spec computer suite, you will be trained how to create, manipulate and reconstruct virtual anatomical models using 3D modelling software.

Functional and Musculoskeletal Anatomy (20 credits)

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.

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.

Ancient Biomolecules (20 credits)

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. This programme is run via the Department of Archaeology, and is subject to availability.
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.

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

<table>
<thead>
<tr>
<th>Term 1</th>
<th>Term 2</th>
<th>Term 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CORE MODULE</strong></td>
<td><strong>CORE MODULE</strong></td>
<td><strong>ELECTIVES</strong></td>
</tr>
<tr>
<td>• Primate Ecology and Evolution (20 credits)</td>
<td>• Primate Ecology and Evolution (20 credits)</td>
<td>• Functional and Musculoskeletal Anatomy (20 credits)</td>
</tr>
<tr>
<td>• Hard Tissue Biology (20 credits)</td>
<td>• Human Evolutionary Anatomy (20 credits)</td>
<td>OR</td>
</tr>
<tr>
<td>• Basic Skills in Virtual Anatomy (5 credits)* and</td>
<td></td>
<td>• Special Topics in Musculoskeletal Anatomy (20 credits)</td>
</tr>
<tr>
<td>• Basic Skills in Geometric Morphometrics (5 credits)* and</td>
<td></td>
<td>OR</td>
</tr>
<tr>
<td>• Evolving Minds and Societies (20 credits)</td>
<td></td>
<td>• Ancient Biomolecules (20 credits)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ELECTIVES</td>
</tr>
<tr>
<td></td>
<td>• Advanced Skills in Virtual Anatomy (5 credits)* and</td>
<td>• Basic Skills in Virtual Anatomy (5 credits)* and</td>
</tr>
<tr>
<td></td>
<td>• Advanced Skills in Geometric Morphometrics (5 credits)* and</td>
<td>• Basic Skills in Geometric Morphometrics (5 credits)* and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Evolving Minds and Societies (20 credits)</td>
</tr>
<tr>
<td>RESEARCH PROJECT (80 credits)</td>
<td></td>
<td>RESEARCH PROJECT (80 credits)</td>
</tr>
</tbody>
</table>

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

## 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.

<table>
<thead>
<tr>
<th>Term 1</th>
<th>Term 2</th>
<th>Term 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year 1</strong></td>
<td><strong>CORE MODULE</strong></td>
<td><strong>ELECTIVES</strong></td>
</tr>
<tr>
<td></td>
<td>• Primate Ecology and Evolution (20 credits)</td>
<td>• Functional and Musculoskeletal Anatomy (20 credits)</td>
</tr>
<tr>
<td></td>
<td>• Hard Tissue Biology (20 credits)</td>
<td>OR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Special Topics in Musculoskeletal Anatomy (20 credits)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Ancient Biomolecules (20 credits)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NO CLASSES SCHEDULED</td>
</tr>
<tr>
<td><strong>Year 2</strong></td>
<td><strong>ELECTIVES</strong></td>
<td><strong>ELECTIVES</strong></td>
</tr>
<tr>
<td></td>
<td>• Basic Skills in Virtual Anatomy (5 credits)* and</td>
<td>• Advanced Skills in Virtual Anatomy (5 credits)* and</td>
</tr>
<tr>
<td></td>
<td>• Basic Skills in Geometric Morphometrics (5 credits)* and</td>
<td>• Advanced Skills in Geometric Morphometrics (5 credits)* and</td>
</tr>
<tr>
<td></td>
<td>• Evolving Minds and Societies (20 credits)</td>
<td>• Evolving Minds and Societies (20 credits)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RESEARCH PROJECT (80 credits)</td>
</tr>
</tbody>
</table>

**PART-TIME STUDENTS CAN DEVISE THEIR OWN STUDY TIMETABLE TO MEET THEIR INDIVIDUAL INTERESTS AND NEEDS**
This course is open to graduates with a minimum of a 2:1 in anatomy, anthropology, archaeology, biology, psychology, zoology and other related fields.

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.
FOR FURTHER INFORMATION

Admissions Enquiries:
pgtadmissions@hyms.ac.uk
01904 321690

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

@HullYorkMed
Hull York Medical School
@HullYorkMed
Hull York Medical School