

## Liverpool John Moores University

Title: ARCHAEOLOGY, HUMAN EVOLUTION AND GENETICS  
Status: Definitive  
Code: **7115NATSCI** (125494)  
Version Start Date: 01-08-2020

Owning School/Faculty: Biological and Environmental Sciences  
Teaching School/Faculty: Biological and Environmental Sciences

Team	Leader
Linus Girdland Flink	Y
Alex Wilshaw	
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Richard Jennings	
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**Academic Level:** FHEQ7      **Credit Value:** 20      **Total Delivered Hours:** 40

**Total Learning Hours:** 200      **Private Study:** 160

### Delivery Options

Course typically offered: Semester 1

Component	Contact Hours
Lecture	20
Workshop	20

**Grading Basis:** 50 %

### Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Test	Test	A test in which students will answer short questions on cultural and biological human evolution as well as solve problems	50	
Report	Report	A short report in which students will present, analyse and interpret aDNA data generated in a series of practicals	50	

## Aims

*To provide the student with a systematic understanding and critical awareness of current methods and questions applied in the field of human cultural and biological evolution through the approaches of palaeoarchaeology, biological anthropology and genetics. The student will gain skills to critically analyse and interpret the archaeological and fossil record of our lineage. Different types of scientific data sets, such as palaeoanthropology datasets, ancient DNA sequences, lithic assemblages, radiocarbon dates (C14 dating), and stable isotopes will be examined.*

## Learning Outcomes

After completing the module the student should be able to:

- 1 Demonstrate a systematic and in-depth understanding of key issues surrounding ancient DNA
- 2 Exhibit critical awareness of archaeological dating methods and chronology
- 3 Critically assess different scientific methods for the resolution of archaeological questions
- 4 Indicate a comprehensive understanding of key stages of human cultural and biological evolution

## Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Test on Human Evolution	2	3	4
aDNA Report	1	3	

## Outline Syllabus

*Palaeoarchaeology, biological anthropology, archaeological science, stable isotope analysis, radiometric dating, ancient DNA and palaeogenetics, palaeodiet, population genetics, human migration, archaeological chronology, human evolution.*

## Learning Activities

The module team will provide a series of lectures and workshops (with practical components) informed by current professional practice and literature.

## Notes

This module is the backbone of the course. The latest advances in human evolution are presented from the perspectives of archaeology, biological anthropology and genetics, which combined can be called palaeoarchaeology or palaeoanthropology.

This module is nicely integrated with the other modules on the programme. The students will gain vital practical expertise in human osteology and dental anthropology in their other first semester modules to support their study of the hominin fossil record. In the second semester they will learn how to survey and excavate archaeological sites, undertake environmental laboratory work, and build virtual/digital datasets from archaeological and palaeoenvironmental contexts.