

## 2006/07 Taught Postgraduate Module Catalogue

### **BIOL5228M**

Human Evolution

**10 credits**

**Module manager** Dr Martin Richards

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**Taught** Semester 1 [View Timetable](#)

**Year running** 2006/07

### **Pre-requisite qualifications**

BSc or equivalent.

**This module is not approved as an Elective**

### **Objectives**

On completion of this module, students should be able to:

- (1) Recount the principal outlines of human anatomical and behavioural evolution since the divergence from the apes;
- (2) Appreciate the distribution of genetic diversity in modern human populations;
- (3) Understand how phylogenetic and population-genetic methods are used to draw inferences about the demographic history of human populations;
- (4) Describe how such tools have been applied to the study of modern human evolution;
- (5) Discuss in some depth contemporary theories of modern human origins and dispersals.

### **Syllabus**

Historical overview and introduction to the various hominin species. The earliest hominins and bipedalism. The australopithecines and the origins of the genus Homo. The evolution of Homo: ergaster and erectus; early dispersals out of Africa. Homo heidelbergensis and the origins of modern humans in Africa. Anatomically modern humans and the fate of the

Neanderthals: the fossil record. Modern human genetic diversity and genetic marker systems. Drawing inferences from genetic diversity: phylogenetic and population-genetic approaches. Humans and apes: the primate heritage. Modern human origins, 'mitochondrial Eve' and 'Y-chromosome Adam'. The distribution of human genetic diversity. Out of Africa and the primary colonisation of America and the Pacific. Agricultural expansions. Admixture.

### **Teaching methods**

Lectures: 15 x 1 hour;

Tutorials: 5 x 1 hour.

### **Private study**

Reading for lectures and tutorial preparation: 45 hours;

Case study/problem solving: 25 hours;

Assessed essay preparation: 10 hours.

### **Progress monitoring**

Lecture attendance;

Assessed essay.

### **Methods of assessment**

Problem solving / data analysis: 50%;

Literature review essay (3000 words): 50%.

### **Reading list**

The [reading list](#) is available from the Library website