



ANTH1051

Human Evolution and Diversity

Session 1, Weekday attendance, North Ryde 2020

Department of Anthropology

Contents

<u>General Information</u>	2
<u>Learning Outcomes</u>	2
<u>Assessment Tasks</u>	3
<u>Delivery and Resources</u>	3
<u>Unit Schedule</u>	5
<u>Policies and Procedures</u>	6

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General Information

Unit convenor and teaching staff

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Credit points

10

Prerequisites

Corequisites

Co-badged status

Unit description

This unit explores the evolution of our species, what makes humans distinct, and how we have developed the biological, cultural and technological diversity we now see around us. The unit examines new research, highlighting the most recent discoveries and theoretical breakthroughs, encouraging students to learn more about the major debates, key discoveries, and important theories in the study of human evolution. Specifically, the unit provides students with a background in evolutionary theory, genetics, anthropology, paleoarchaeology, and comparative primatology in order to address a number of topics: the development of the human brain; bipedalism; language; families; social life; sexuality; reproduction; hunting; diet; art; stone tools and technology; language; domesticated plants and animals; cities; and the first civilisations. The unit also demonstrates how an evolutionary perspective offers new insights into modern human diversity, including both cultural and biological differences among us. The unit does not require a background in the biological or evolutionary sciences. It provides an excellent foundation for understanding and evaluating important contemporary issues.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at <https://www.mq.edu.au/study/calendar-of-dates>

Learning Outcomes

On successful completion of this unit, you will be able to:

ULO1: Explain key anthropological concepts and theories in the study of human

evolution, including be familiar with the most important debates and new developments in the field.

ULO3: Evaluate and employ evolution-based explanations for contemporary features of human life, anatomy, and behavior.

ULO2: Explain how paleoanthropologists conduct research and draw conclusions about extinct species and ways of life from material evidence.

ULO4: Employ theoretical concepts, evidence, and analysis by specifically exercising these abilities on the materials covered in this unit.

ULO5: Discuss and examine material related to human evolution (such as facsimile remains, site surveys, and material culture).

ULO6: Analyse and express judgement about significant debates in the study of human evolution.

Assessment Tasks

Coronavirus (COVID-19) Update

Assessment details are no longer provided here as a result of changes due to the Coronavirus (COVID-19) pandemic.

Students should consult [iLearn](#) for revised unit information.

[Find out more about the Coronavirus \(COVID-19\) and potential impacts on staff and students](#)

Delivery and Resources

Coronavirus (COVID-19) Update

Any references to on-campus delivery below may no longer be relevant due to COVID-19.

Please check here for updated delivery information: https://ask.mq.edu.au/account/pub/display/unit_status

Anth 1051 is primarily a lecture and tutorial class, with hands-on examination of facsimile human remains and other lab-based activities conducted in tutorials.

Technology used and required:

Students will need to have access to the iLearn section, as handouts, FAQs, video links, and a host of other resources will be available through iLearn. The online discussion sections for Anth 1051 historically have been very active as students help each other to understand key concepts. The unit convenor makes extensive use of online slides, videos, and other resources.

Readings

All readings for the unit will be available through the Leganto system on the library website. Students will not be able to complete the unit without these materials. Students will also find the weekly review sheets for key concepts and additional information about assessment tasks in each weekly section of iLearn.

Lecture meetings

Students are strongly encouraged to attend lectures, but if scheduling or unforeseen circumstances are an issue, all lectures are taped through Echo 360, and slide shows (including video links and other materials), available through iLearn.

Teaching and Learning Strategy

The course as a whole is designed to convey the excitement, theoretical innovation, and new discoveries emerging in the study of human evolution. A clearer understanding of evolutionary processes allows students to appreciate the role of evolution in shaping humans and other organisms and to better evaluate contemporary arguments that make use of evolutionary theory or research. By the end of the unit, students should have a greater appreciation of the diversity of methods used to study human evolution, some of the most important debates within the field, and the distinctiveness of human beings among animals.

The course provides an excellent foundation for further, more specialised study in anthropology at the 200-level, but it also provides a robust understanding of human evolution that might contribute to students' continued study of such fields as health, psychology, politics, Aboriginal studies, and a host of other specialties. Although each week focuses roughly on a different time period in human evolution, the issues brought up in each will be extended to contemporary human life.

For example, although the discussion of Technology in Week Eight focuses on the emergence of complex stone tools, especially the contrast between Neandertal material culture and the technology of comparable archaic *Homo sapiens*, we will also be discussing how technological innovation affects the evolutionary development of humans up until the present. By examining how we came to be as a species, our ancestors and nearest relatives, we come to a deeper understanding of human nature itself, including the variation that exists within our species—both biological and cultural.

Evolutionary theory is one of the most powerful explanatory mechanisms for understanding all life, but it is also prone to being abused; the thorough background provided in this unit may lead students to be more sceptical around certain types of evolutionary arguments without repudiating evolutionary theory itself. In addition, this unit on evolution and diversity provides a foundation for thinking about the relationship of culture to biology, of nature to nurture, and of psychology to social life.

The questions posed by the origins of humanity are too big and difficult to solve with only half the evidence at our disposal, so we will become better practiced at understanding human holistically, one of the most important characteristics of anthropology. Students will do best if they realise that, to some degree, many of the key issues in the evolutionary history of our species and in the nature of our species' diversity are still subject to debate, although anthropologists and other scientists may agree on the broader outlines.

Information

Extensive support materials are provided through iLearn. Please consult iLearn with initial questions as the students are likely to find many resources there.

Unit Schedule

Coronavirus (COVID-19) Update

The unit schedule/topics and any references to on-campus delivery below may no longer be relevant due to COVID-19. Please consult [iLearn](#) for latest details, and check here for updated delivery information: https://ask.mq.edu.au/account/pub/display/unit_status

Lecture program (please see reader or iLearn for full list of readings):

Week One: Introduction 1.1 Introduction to unit requirements 1.2 Basics of evolutionary biology

Week Two: Natural selection and genetics 2.1 Darwin on natural selection 2.2 Updating Darwin: neo-Darwinism & the genetics revolution

Week Three: Humans among primates 3.1 Primates: origin and distinctive niche 3.2 The perils of comparison: chimpanzees, for example...

Week Four: Early hominids and bipedalism 4.1 Bipedalism: why walk on two feet? 4.2 The evidence of human evolution in paleoarchaeology

Week Five: Genus *Homo*: brain & dietary change 5.1 Brains, human & others 5.2 How diet affects the brain: evolution & development

Week Six: Sex & reproduction 6.1 Human sexuality in evolutionary perspective 6.2 Human reproduction: is anything natural?

Week Seven: The first technology 7.1 Lithic technology: Paleolithic innovations 7.2 Fire, clothes & other human tricks: what could Neandertals do?

Week Eight: Language origins & development 8.1 The ability to communicate: do other animals talk? 8.2 Language change

Week Nine: The epic of humanity 9.1 The rise of anatomically modern humans 9.2 Getting out of Africa

Week Ten: NO MEETING! No lectures or tutorials the tenth week. Make sure to finish Outline Essay!

Week Eleven: Food domestication and urbanisation 11.1 The Neolithic Revolution: growing our own food 11.2 The social ape & the first cities

Week Twelve: Human variation: genes, races and cultures 12.1 Modern human variation: are we all that different? 12.2 Traces of human adaptation

Week Thirteen: Is evolution over? 13.1 Do culture & technology replace selection?: genetic

evidence 13.2 Future humans

Tutorial program (please see reader or iLearn for full list of readings):

Introductory Tutorial: Week One tutorial has no assigned reading but prepares students for the semester, including special skills that they will need to complete Anth 151.

Tutorial One: Evolutionary dynamics and adaptation including the 'extension' of the modern Neo-Darwinian synthesis.

Tutorial Two: Our nearest primate relatives: skulls, 'culture'? Do chimpanzees or other primates have something like 'culture'?

Tutorial Three: Traces in the ash: the Laetoli footprints Laetoli footprint materials.

Tutorial Four: Food for thought: evolution, brain and diet

Tutorial Five: Mating strategies: the evolution dating game, and discussion of gender and child rearing as evolutionary outcomes and forces.

Tutorial Six: Stone tools and Neandertal minds.

Tutorial Seven: Language evolution and change: how fast can languages change and what variation can we see today?

Tutorial Eight: Out of Africa: the rise of modern humanity

Tutorial Nine: Out modern ecological niche and the ecological consequences of domestication

Tutorial Ten: How do we think about human variation? Is 'race' useful? Adaptation? And how is our species changing?

Tutorial Eleven: What do current selective pressures tell us about what is to come?

Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central](https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central) (<https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central>). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- [Academic Appeals Policy](#)
- [Academic Integrity Policy](#)
- [Academic Progression Policy](#)
- [Assessment Policy](#)
- [Fitness to Practice Procedure](#)
- [Grade Appeal Policy](#)
- [Complaint Management Procedure for Students and Members of the Public](#)
- [Special Consideration Policy](#) (**Note:** *The Special Consideration Policy is effective from 4*

December 2017 and replaces the Disruption to Studies Policy.)

Students seeking more policy resources can visit the [Student Policy Gateway](https://students.mq.edu.au/support/study/student-policy-gateway) (<https://students.mq.edu.au/support/study/student-policy-gateway>). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

If you would like to see all the policies relevant to Learning and Teaching visit [Policy Central](https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central) (<https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central>).

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: <https://students.mq.edu.au/study/getting-started/student-conduct>

Results

Results published on platform other than [eStudent](#), (eg. iLearn, Coursera etc.) or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in [eStudent](#). For more information visit ask.mq.edu.au or if you are a Global MBA student contact globalmba.support@mq.edu.au

Student Support

Macquarie University provides a range of support services for students. For details, visit <http://students.mq.edu.au/support/>

Learning Skills

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to help you improve your marks and take control of your study.

- [Getting help with your assignment](#)
- [Workshops](#)
- [StudyWise](#)
- [Academic Integrity Module](#)

The Library provides online and face to face support to help you find and use relevant information resources.

- [Subject and Research Guides](#)
- [Ask a Librarian](#)

Student Services and Support

Students with a disability are encouraged to contact the [Disability Service](#) who can provide appropriate help with any issues that arise during their studies.

Student Enquiries

For all student enquiries, visit Student Connect at ask.mq.edu.au

If you are a Global MBA student contact globalmba.support@mq.edu.au

IT Help

For help with University computer systems and technology, visit http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/.

When using the University's IT, you must adhere to the [Acceptable Use of IT Resources Policy](#). The policy applies to all who connect to the MQ network including students.