



ANTH151

Human Evolution and Diversity

X2 2012

Anthropology

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General Information

Unit convenor and teaching staff

Unit Convenor

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Credit points

3

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 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; clothing; art; stone tools and technology; 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 such as whether sexuality is hardwired, how technology affects us, if genetic racial differences are significant, what makes our species distinct, and how humans might look in the future.

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:

Introduce students to certain key concepts and theories in the study of human evolution

including the most important debates and new developments in the field.

Provide a clear sense of how paleoanthropologists conduct research and draw conclusions about extinct species and ways of life from material evidence.

Help them to understand, evaluate, and employ evolution-based explanations for contemporary features of human life, anatomy, and behaviour, including the limits on those explanations.

Improve students' ability to employ theoretical concepts, evidence, and analysis in general by specifically exercising these abilities on the materials covered in this unit.

Actively participate in group discussions and examinations of material related to human evolution (such as facsimile remains, site surveys, and material culture).

Analyze and express your judgement about significant debates in the study of human evolution.

Assessment Tasks

Name	Weighting	Due
<u>Final exam</u>	25%	TBA (exam period)
<u>Literature Review</u>	18%	7 September
<u>Quiz</u>	2%	17 August, 5pm (Sydney time)
<u>Midterm exam</u>	25%	12 & 13 September, online.
<u>Tutorials</u>	10%	Throughout semester
<u>Outline essay</u>	20%	19 October

Final exam

Due: **TBA (exam period)**

Weighting: **25%**

The exam will be held during the University's examination period after the semester. You must be available for any date scheduled by the University in this period, as only those absent for reasons beyond their control can qualify for a late exam. The precise date will be posted by the university eight weeks before the exam in draft form, and in final form approximately four weeks before the examinations commence.

The final exam covers material since the midterm exam; that is, the final exam is NOT cumulative.

On successful completion you will be able to:

- Introduce students to certain key concepts and theories in the study of human evolution including the most important debates and new developments in the field.
- Help them to understand, evaluate, and employ evolution-based explanations for contemporary features of human life, anatomy, and behaviour, including the limits on those explanations.
- Improve students' ability to employ theoretical concepts, evidence, and analysis in general by specifically exercising these abilities on the materials covered in this unit.

Literature Review

Due: **7 September**

Weighting: **18%**

See the iLearn site for complete description and advice.

The literature review is primarily a library-based assignment that can be conducted online, especially using the Macquarie University Library's extensive database and journal collection. Students are encouraged to find a recent article in a scientific journal (peer reviewed, which means articles are reviewed by other scientists before publication).

The student must then copy the citation accurately, write **IN HIS OR HER OWN WORDS**, a summary of the crucial finding or research result, and the reason for its importance. Then the student must track down previous scientific, peer-reviewed journal articles on the same subject, especially works cited in the primary (first) article, or that cite the primary article. This may be made easier using the 'Web of Science' database, available through the Library's database collection. The student must compile a **MINIMUM** of five sources that describe or analyze different findings, some of which may contradict the original primary article, write the citation and summary for each, and complete the assignment with a 200-word or less description of the whole debate.

The whole assignment usually takes three pages or less to complete.

On successful completion you will be able to:

- Provide a clear sense of how paleoanthropologists conduct research and draw conclusions about extinct species and ways of life from material evidence.
- Actively participate in group discussions and examinations of material related to human evolution (such as facsimile remains, site surveys, and material culture).
- Analyze and express your judgement about significant debates in the study of human evolution.

Quiz

Due: **17 August, 5pm (Sydney time)**

Weighting: **2%**

Multiple choice quiz on concepts, reading & lectures from first three weeks. Same format as midterm and final exam questions to acquaint students with the exercise. Quiz is timed, and students must complete by Friday at 5 pm.

On successful completion you will be able to:

- Introduce students to certain key concepts and theories in the study of human evolution including the most important debates and new developments in the field.
- Improve students' ability to employ theoretical concepts, evidence, and analysis in general by specifically exercising these abilities on the materials covered in this unit.

Midterm exam

Due: **12 & 13 September, online.**

Weighting: **25%**

From Wednesday 12 September, to Thursday 13 September, you will be able to log onto the online midterm exam and take it on your own time (there will be no tutorial discussion online or lecture that week).

External students will find that the exams taken through iLearn are a challenge, but that you can get through all the material. The exam is closed book, and we require you to pledge, on your honour, that you have not either given or received assistance.

On successful completion you will be able to:

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- Help them to understand, evaluate, and employ evolution-based explanations for contemporary features of human life, anatomy, and behaviour, including the limits on those explanations.
- Improve students' ability to employ theoretical concepts, evidence, and analysis in general by specifically exercising these abilities on the materials covered in this unit.

Tutorials

Due: **Throughout semester**

Weighting: **10%**

The external version of Anth 151 has an online tutorial discussion. Students must contribute to discussion for a minimum of 10 of 12 weeks; this must be done within ten days of the lecture for that week being made available. (Students cannot simply post comments on 10 of the discussion threads during the last week, as this in no way constitutes any sort of 'discussion'.) The tutorial question sheets and key terms are available to inspire comments, but students DO NOT need to answer every question on these sheets. We are most interested in you focusing on the issues that you think are key.

10% of the marks are for tutorial participation and completion, and essay extensions are dependent on your tutor's assessment of your satisfactory attendance (see Assessment policy below). So be sure to participate in the online tutorial discussion!

The purpose of tutorials in this course is to foster informed discussion. Therefore, you **MUST** read the assigned material before you post; if the external TA finds that you have persistently not read the material, that your comments indicate that you are not keeping up with the work, you will not have your contribution counted.

Online tutorial discussion refers to material covered in lectures, either consolidating a concept or extending it in a specific direction. Many of the key terms in tutorial readings may be defined and discussed in the lecture—so watching or listening to the lectures is vital to following tutorial readings and discussion. If you find the material difficult or there are things you don't understand in the readings, bring your questions to discuss to the bulletin boards. Make a note of the important issues that the readings and lectures pose for you and raise them at your tutorial.

Tutorial attendance and assessment: All students may miss up to two tutorial discussion threads without needing explanation. Any more misses (three or more) will result in a reduction of your final mark. All students, including on-campus students, have access to these discussion threads (and many of them learn a lot from your discussions, we have found), so please remember that your comments are semi-public.

On successful completion you will be able to:

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- Help them to understand, evaluate, and employ evolution-based explanations for contemporary features of human life, anatomy, and behaviour, including the limits on those explanations.
- Improve students' ability to employ theoretical concepts, evidence, and analysis in general by specifically exercising these abilities on the materials covered in this unit.
- Actively participate in group discussions and examinations of material related to human evolution (such as facsimile remains, site surveys, and material culture).
- Analyze and express your judgement about significant debates in the study of human evolution.

Outline essay

Due: **19 October**

Weighting: **20%**

See iLearn for complete information and advice for completing the assessment.

Using skills practiced in the Literature review, the student will prepare an Outline essay, which involves developing the essential elements of a good essay in outline form. The Outline essay will involve choosing one of the Outline essay topics, or proposing a topic based on a lecture topic or reading in our unit outline, and preparing an introduction (approximately one page), an outline of evidence and how the argument would be structured (citing the sources), conclusion which discusses the implications, reservations and importance of the argument and a references cited list. The whole document should be less than four pages.

If the student is uncertain about how to prepare the Outline essay, or the way that it will be evaluated, see the information on assessment tasks in iLearn.

On successful completion you will be able to:

- Provide a clear sense of how paleoanthropologists conduct research and draw conclusions about extinct species and ways of life from material evidence.
- Help them to understand, evaluate, and employ evolution-based explanations for contemporary features of human life, anatomy, and behaviour, including the limits on those explanations.
- Improve students' ability to employ theoretical concepts, evidence, and analysis in general by specifically exercising these abilities on the materials covered in this unit.
- Analyze and express your judgement about significant debates in the study of human evolution.

Delivery and Resources

Anth 151 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 151 historically have been very active as students help each other to understand key concepts. The unit convenor makes extensive use of online slides, videos, Prezis, and other resources.

For the purpose of taking online exams at the midterm and final, we strongly recommend that you find some access to a high-speed internet connection. At times, iLearn has been known to be slow to reset (and save your answers), and this can get worse with a bad connection. Students in the past (only one or two last year) reported that this was very stressful as they were not certain that their answers were being recorded successfully. If possible, schedule to be on a high-speed connection, especially for the midterm exam.

Lecture times

Lectures are offered twice. Wednesdays from 4 to 6 pm in Y3A T1 and Thursdays from 3 to 5 pm in E7B T4. Students are encouraged to attend lectures, but if scheduling or unforeseen

circumstances are an issue, all lectures are taped and slide shows (including video links and other materials) made 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 specialized 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

Changes since the last offering of this unit.

The unit is largely the same as the version offered with high student satisfaction in 2011. The assessment tasks have been reweighted in importance to reflect student feedback, especially about the weighting of the Outline essay assessment and the first quiz (as well as the equal weighting of midterm and final suggested by students).

The online video tutorials, including those about the assessment tasks, are new for this year (2012).

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

Summary of Tutorial Programme Note: No meeting the first or seventh weeks! Tutorial One: Evolutionary dynamics and adaptation Gould, Stephen Jay, and Elisabeth S. Vrba. 1982. 'Exaptation—a missing term in the science of form.' *Paleobiology* 8(1): 4-15. Tutorial Two: Our nearest primate relatives: skulls, 'culture'? 'A Guide to the Cultures of Chimpanzees.' From *Scientific American* 2001, Vol. 284. Tutorial Three: Traces in the ash: the Laetoli footprints Laetoli footprint materials. Tutorial Four: Food for thought: the evolution of diet Leonard, William R. 2003. 'Food for Thought: Dietary Change Was a Driving Force in Human Evolution.' *Scientific American* (updated from December 2002): 62-71. Tutorial Five: Mating strategies: the evolution dating game Small, Meredith F. 1997. 'Our Babies, Ourselves.' *Natural History Magazine* (October): 42-51 (reprinted in *Annual Editions: Anthropology* 06/07, pp. 100-106) together with accompanying sidebars by LeVine et al.). Tutorial Six: Stone tools Foley, Robert, and Marta Mirazón Lahr. 2003. 'On Stony Ground: Lithic Technology, Human Evolution, and the Emergence of Culture.' *Evolutionary Anthropology* 12: 109-122. Tutorial Seven: Reinventing language Diamond, Jared M. 1991. 'Reinvention of Human Language.' *Natural History* 5/91: 22-28. Reprinted in *Through the Looking Glass: Readings in General Anthropology*. Second edition. 2000. Pp. 26-35. Tutorial Eight: Out of Africa Jurmain, Robert, Lynn Kilgore, and Wenda Trevathan, with Russell L. Ciochon. 2008. The Origin and Dispersal of Modern Humans. In *Introduction to Physical Anthropology*. Eleventh edition. Pp. 352-377. Thomson-Wadsworth. Tutorial Nine: Out modern ecological niche Mann, Charles. 2002. '1491.' *The Atlantic Monthly* (March): 1-13. Tutorial Ten: Is race a useful concept? George W. Gill and Jonathan Marks. 1998 and 1994. 'Issue 1: Is Race a Useful Concept for Anthropologists?' In *Taking Sides: Clashing Views on Controversial Issues in Anthropology*. Third edition. Kirk M. Endicott and Robert L. Welsch, eds. Pp. 2-15. Dubuque, Iowa: McGraw-Hill/Dushkin. Tutorial Eleven: Modern selective pressures Ward, Peter. 2009. 'What Will Become of Homo sapiens?' *Scientific American* 300 (1): 68-73.

Unit Schedule

Two lectures are available for Anth 151. See the online course catalog for times.

See iLearn for a complete listing of lecture topics, readings, and other materials.

Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central](#). Students should be aware of the following policies in particular with regard to Learning and Teaching:

Academic Honesty Policy http://www.mq.edu.au/policy/docs/academic_honesty/policy.html

Assessment Policy <http://www.mq.edu.au/policy/docs/assessment/policy.html>

Grade Appeal Policy <http://www.mq.edu.au/policy/docs/gradeappeal/policy.html>

Special Consideration Policy http://www.mq.edu.au/policy/docs/special_consideration/policy.html

In addition, a number of other policies can be found in the [Learning and Teaching Category](#) of Policy Central.

Student Support

Macquarie University provides a range of Academic Student Support Services. Details of these services can be accessed at: <http://students.mq.edu.au/support/>.

UniWISE provides:

- Online learning resources and academic skills workshops http://www.mq.edu.au/learning_skills/
- Personal assistance with your learning & study related questions.
- The Learning Help Desk is located in the Library foyer (level 2).
- Online and on-campus orientation events run by Mentors@Macquarie.

Student Services and Support

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

Student Enquiries

Details of these services can be accessed at <http://www.student.mq.edu.au/ses/>.

IT Help

If you wish to receive IT help, we would be glad to assist you at <http://informatics.mq.edu.au/help/>.

When using the university's IT, you must adhere to the [Acceptable Use Policy](#). The policy applies to all who connect to the MQ network including students and it outlines what can be done.

Graduate Capabilities

Capable of Professional and Personal Judgement and Initiative

We want our graduates to have emotional intelligence and sound interpersonal skills and to

demonstrate discernment and common sense in their professional and personal judgement. They will exercise initiative as needed. They will be capable of risk assessment, and be able to handle ambiguity and complexity, enabling them to be adaptable in diverse and changing environments.

This graduate capability is supported by:

Learning outcomes

- Introduce students to certain key concepts and theories in the study of human evolution including the most important debates and new developments in the field.
- Provide a clear sense of how paleoanthropologists conduct research and draw conclusions about extinct species and ways of life from material evidence.
- Help them to understand, evaluate, and employ evolution-based explanations for contemporary features of human life, anatomy, and behaviour, including the limits on those explanations.
- Improve students' ability to employ theoretical concepts, evidence, and analysis in general by specifically exercising these abilities on the materials covered in this unit.

Commitment to Continuous Learning

Our graduates will have enquiring minds and a literate curiosity which will lead them to pursue knowledge for its own sake. They will continue to pursue learning in their careers and as they participate in the world. They will be capable of reflecting on their experiences and relationships with others and the environment, learning from them, and growing - personally, professionally and socially.

This graduate capability is supported by:

Learning outcome

- Analyze and express your judgement about significant debates in the study of human evolution.

Discipline Specific Knowledge and Skills

Our graduates will take with them the intellectual development, depth and breadth of knowledge, scholarly understanding, and specific subject content in their chosen fields to make them competent and confident in their subject or profession. They will be able to demonstrate, where relevant, professional technical competence and meet professional standards. They will be able to articulate the structure of knowledge of their discipline, be able to adapt discipline-specific knowledge to novel situations, and be able to contribute from their discipline to inter-disciplinary solutions to problems.

This graduate capability is supported by:

Learning outcomes

- Introduce students to certain key concepts and theories in the study of human evolution including the most important debates and new developments in the field.
- Provide a clear sense of how paleoanthropologists conduct research and draw conclusions about extinct species and ways of life from material evidence.
- Help them to understand, evaluate, and employ evolution-based explanations for contemporary features of human life, anatomy, and behaviour, including the limits on those explanations.
- Actively participate in group discussions and examinations of material related to human evolution (such as facsimile remains, site surveys, and material culture).
- Analyze and express your judgement about significant debates in the study of human evolution.

Critical, Analytical and Integrative Thinking

We want our graduates to be capable of reasoning, questioning and analysing, and to integrate and synthesise learning and knowledge from a range of sources and environments; to be able to critique constraints, assumptions and limitations; to be able to think independently and systemically in relation to scholarly activity, in the workplace, and in the world. We want them to have a level of scientific and information technology literacy.

This graduate capability is supported by:

Learning outcomes

- Provide a clear sense of how paleoanthropologists conduct research and draw conclusions about extinct species and ways of life from material evidence.
- Help them to understand, evaluate, and employ evolution-based explanations for contemporary features of human life, anatomy, and behaviour, including the limits on those explanations.
- Improve students' ability to employ theoretical concepts, evidence, and analysis in general by specifically exercising these abilities on the materials covered in this unit.
- Actively participate in group discussions and examinations of material related to human evolution (such as facsimile remains, site surveys, and material culture).

Problem Solving and Research Capability

Our graduates should be capable of researching; of analysing, and interpreting and assessing data and information in various forms; of drawing connections across fields of knowledge; and they should be able to relate their knowledge to complex situations at work or in the world, in order to diagnose and solve problems. We want them to have the confidence to take the initiative in doing so, within an awareness of their own limitations.

This graduate capability is supported by:

Learning outcomes

- Provide a clear sense of how paleoanthropologists conduct research and draw conclusions about extinct species and ways of life from material evidence.
- Improve students' ability to employ theoretical concepts, evidence, and analysis in general by specifically exercising these abilities on the materials covered in this unit.
- Actively participate in group discussions and examinations of material related to human evolution (such as facsimile remains, site surveys, and material culture).

Creative and Innovative

Our graduates will also be capable of creative thinking and of creating knowledge. They will be imaginative and open to experience and capable of innovation at work and in the community. We want them to be engaged in applying their critical, creative thinking.

This graduate capability is supported by:

Learning outcome

- Analyze and express your judgement about significant debates in the study of human evolution.

Effective Communication

We want to develop in our students the ability to communicate and convey their views in forms effective with different audiences. We want our graduates to take with them the capability to read, listen, question, gather and evaluate information resources in a variety of formats, assess, write clearly, speak effectively, and to use visual communication and communication technologies as appropriate.

This graduate capability is supported by:

Learning outcomes

- Provide a clear sense of how paleoanthropologists conduct research and draw conclusions about extinct species and ways of life from material evidence.
- Help them to understand, evaluate, and employ evolution-based explanations for contemporary features of human life, anatomy, and behaviour, including the limits on those explanations.
- Analyze and express your judgement about significant debates in the study of human evolution.

Engaged and Ethical Local and Global citizens

As local citizens our graduates will be aware of indigenous perspectives and of the nation's historical context. They will be engaged with the challenges of contemporary society and with

knowledge and ideas. We want our graduates to have respect for diversity, to be open-minded, sensitive to others and inclusive, and to be open to other cultures and perspectives: they should have a level of cultural literacy. Our graduates should be aware of disadvantage and social justice, and be willing to participate to help create a wiser and better society.

This graduate capability is supported by:

Learning outcomes

- Introduce students to certain key concepts and theories in the study of human evolution including the most important debates and new developments in the field.
- Help them to understand, evaluate, and employ evolution-based explanations for contemporary features of human life, anatomy, and behaviour, including the limits on those explanations.
- Analyze and express your judgement about significant debates in the study of human evolution.

Socially and Environmentally Active and Responsible

We want our graduates to be aware of and have respect for self and others; to be able to work with others as a leader and a team player; to have a sense of connectedness with others and country; and to have a sense of mutual obligation. Our graduates should be informed and active participants in moving society towards sustainability.

This graduate capability is supported by:

Learning outcome

- Introduce students to certain key concepts and theories in the study of human evolution including the most important debates and new developments in the field.