Human Evolution 331, 12647

Semester One, 2012

Unit study package number: 12647
Mode of study: Internal
Tuition pattern summary: Lecture: 1 X 2 Hours Weekly
                           Laboratory: 1 x 3 Hours Weekly
                           This unit contains a fieldwork component. Day trips to the
                           Museum form part of the practical work
Credit value: 25
Pre-requisite units: Students must be enrolled in the 3rd year of their current course
Result type: Grade and Mark

Scheduled times and Venues For Consultation:

Unit Coordinator: George Newland
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                  Email: g.newland@curtin.edu.au
                  Building : Room: 405.229
                  Consultation times: anytime via phone or Email

Web Coordinator: Name: Randy Strack
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                 Building : Room: 405.229
                 Consultation times: Normal working hours

Administrative contact: Name: Mrs.JanetteMcLeod
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                      Consultation times: Normal working hours

Learning Management System: FLECS - Blackboard (oasis.curtin.edu.au)
Syllabus
Theories of Evolution, the fossil record of primates with emphasis on the hominids, the origins of modern Homo. Comparative and functional anatomy of primates, the analysis of archaeological material and methods of Phylogenetic analysis are explored in the Laboratory.

Introduction
What do we mean by evolution? How established is the modern theory? What are some of the alternative theories? Is "Creation Science" a science? What is the point of studying evolution? Is prehistory relevant to us today? Humans are classed as primates. What does it mean to be a primate? Why do primates have their particular characteristics? What does the fossil record tell us about this? When did our genus Homo begin, and what were the environmental forces that resulted in the emergence of a new type of primate? The lab work seeks to give an insight into the methodology of physical anthropology, and develop competence in the methods of science in general. Included in the lab exercises are comparative primate anatomy, the analysis of fossil remains, and methods of classification and phylogenetic analysis, including Numerical Taxonomy and Cladistics.

Unit Learning Outcomes
On successful completion of this unit students can:

<table>
<thead>
<tr>
<th>Graduate Attributes addressed:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. assess the current ideas on human prehistory in terms of the paradigms of evolutionary biology</td>
</tr>
<tr>
<td>2. demonstrate specific practical skills associated with analysing fossil remains and techniques for classification of unknown material</td>
</tr>
<tr>
<td>3. process, display and statistically analyse data, test hypotheses, write reports and communicate scientifically</td>
</tr>
<tr>
<td>4. demonstrate professional ethics and behaviour, teamwork and leadership</td>
</tr>
</tbody>
</table>

Find out more about Curtin’s Graduate attributes at the Office of Teaching & Learning website: otl.curtin.edu.au

Learning Activities
There is a formal structure of lectures and laboratory classes, but in practice there is considerable variation in the delivery of material within this.

Lectures
The study of human evolution takes from many areas in the Life and Behavioural Sciences, including Functional Anatomy, Physiology, Anthropology, Psychology, Sociology, Genetics, and Neuroscience. The lectures integrate and draw together the many disparate threads and present the material in a digestible form for the many students who come from differing backgrounds.

The lectures are also available online, but it must be emphasized that the “live” lectures are a richer experience, illustrated with fossil casts, video clips and other material and often diverge.
from the set syllabus to explore some new development. Since new fossil discoveries seem to emerge by the hour, this is a not insignificant happening in live lectures.

**Laboratory**

A very “hands-on” approach is followed, using the principle of “learning by doing”. In this way it is hoped the students will gain a real insight into the methods by which the fossil record is reconstructed, and can confidently assess the strength of the latest finds. This is an important outcome, as the interpretation of new finds is always controversial. The laboratory work is backed up by assignments and a final practical exam (see below). Day trips to the Museum form part of the laboratory sessions.

The laboratory work is regarded as essential, and may be difficult to make up, so every attempt must be made to attend.

**Film Sessions**

These are held on a regular basis and supplement the lecture and lab material.

**Learning Resources**

**Essential Text**


*Note that this book is also the recommended text for Human Evolution 332*

**Additional Reading**

Although some of these are old dates they have not been replaced by comparable material.


*The ones marked with asterisks are useful general texts, and may be placed on Reserve, depending on the demand.

Additional material specific to the assignments will be provided, and will be available from the Reserve Collection, as electronic documents. In addition, a collection of TV documentaries on human evolution is available for viewing.

It is expected of students that they take advantage of the wide variety of sources available, and show some knowledge outside of, and additional to, the lecture material. Below are some resources you may find available at your local Library or elsewhere.

**JOURNALS/MAGAZINES**
Some Journals/Magazines frequently quoted are listed. These can be accessed through the Online resources of the Library Catalogue.

Archaeology in Oceania
American Journal of Physical Anthropology
American Scientist
Current Anthropology
Discover
Human Biology
Journal of Human Evolution
Journal of World Prehistory
Mankind
VIDEOS
A selection of these will be shown in class as appropriate
“Dating The Dreamtime” (ABC) Application of dating methods to Australia
“The Blind Watchmaker” Richard Dawkins on his contrasting view of evolution.
“This View of Life” In contrast Steven Jay Gould on his view of evolution
“Evolution” (6-part BBC Series) very good
“Living In The Trees” (David Attenborough/BBC series “Life On Earth”)
“Some Like It Hot” (BBC Horizon) About the first hominids and the problems they faced.
“The Making of Mankind” (Richard Leakey/6-part BBC Series) Old but good. Episodes are “In The Beginning” “One Small Step” “A Human Way” “Beyond Africa” “A New Era”
“In Search of Our Ancestors (Donald Johanson/3-part HorizonSeries)
This series does not quite have the depth of the BBC one, but is more up-to-date (1998).
“Lucy” “Survival” “Homo sapiens
“The Human Journey” (3-part ABC Series) This Australian-made series is excellent, and right up-to-date (1999). “In Search of Human Origins”, “Tale of Two Species”, “The Creative Explosion”
“The Fate of Neandertal Man” (2-part BBC/Horizon Series) “The Mammoth Hunters” and “The Last Neandertal”
“Neandertal” (2-part BBC/Horizon) A different series, very up-to-date (March 2001) and technically superior as a production (it has the first credible-looking Neandertals so far!). This series is about “lifestyle”, i.e. it is not like an archaeological documentary, but runs more like a fictional work, as in the manner of recent dinosaur films.
“The Mystery Of The Human Hobbit” (ABC) Documentary on the latest astonishing discovery from Flores, Indonesia.

TV Documentaries
Both the ABC1 and SBS2 run the latest documentaries on human evolution, of which the above are a sample. Also check out “Catalyst” (ABC1) each week.
Radio National Check out the Radio National Science Show site at http://www.abc.net.au/rn/science/ss/index.htm

Web Sites
There are many, many web sites devoted to human evolution. It is pointless to give a list as they change frequently and are often not updated. The more reliable ones will be associated with academic institutions.

Online Resources
FLECS®-Blackboard–This will provide an electronic copy of the unit outline, research guide, activities, due dates and relevant information. This material will only be accessible to students
enrolled in the unit. (http://lms.curtin.edu.au)

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**Assessment**

**Assessment Schedule**

<table>
<thead>
<tr>
<th>Component</th>
<th>Task</th>
<th>Value (%)</th>
<th>Date due</th>
<th>Unit Learning Outcome(s) assessed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practical</td>
<td>3 Assignments</td>
<td>30</td>
<td>6/4/12</td>
<td>1, 2, 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4/5/12</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>25/5/12</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Practical Test</td>
<td>20</td>
<td></td>
<td>1, 3, 4</td>
</tr>
<tr>
<td>Theory</td>
<td>Essay-type Exam</td>
<td>50</td>
<td></td>
<td>1, 3, 4</td>
</tr>
</tbody>
</table>

**Detailed information on assessment tasks**

**Assignments**
Assignments are based on the practical work given. There are 3, each worth 10%. They consist of analyses and reports of the work done, sometimes the result of cooperative class exercises, rather than individual work. However the writing up will be treated as individual work. **Students will be assessed on their ability to show understanding of the work done, carry out the required analyses, and to access various types of resources, including text, journal and web-based ones. Finally presentation will be a component of the mark.**

**Practical Exam**
A practical test will be given, based on part of the Semester's work. It will involve materials related to the practicals and only presented in the practicals. It will be worth 20%. **The test will be based not so much on recognition but the ability to explain what the material tells you. Together with the assignments this will constitute the practical side of the assessment, worth 50%**

**Final Examinations**
The final examination will be a 3 hour extended-answer paper based mainly on the lecture material, but may include theoretical aspects of the practical material. There will be some choice. It will be a closed book exam, worth 50% of the total marks. **Students will be assessed on their ability to show that they understand the context of the question by assembling relevant facts, constructing logical chains of argument, and to express ideas clearly and simply.**
Fair assessment through moderation

Moderation describes a quality assurance process to ensure that assessments are appropriate to the learning outcomes, and that student work is consistently evaluated by assessors. Minimum standards for the moderation of assessment are described in the Assessment Manual, available from policies.curtin.edu.au/policies/teachingandlearning.cfm

Late penalties

Faculty of Health Sciences policy for late submission: students are expected to submit each assessment on or before the due deadline date. Failure to do so will result in a 10% penalty per calendar day (e.g. 10% per day off the ‘total’ marks available – an assignment worth 25 marks will lose 2.5 marks every day it is late). An assignment more than 7 days overdue will not be marked.

Pass requirements

All assignments must be completed. A student must pass both the practical and theory components of the exam.

Referencing style

Students should use the APA referencing style when preparing assignments. More information can be found on this style from the Library web site: library.curtin.edu.au/research_and_information_skills/referencing

Plagiarism

Plagiarism occurs when work or property of another person is presented as one's own, without appropriate acknowledgement or referencing. Plagiarism is a serious offence. For more information refer to academicintegrity.curtin.edu.au

Plagiarism Monitoring

Work submitted may be subjected to a plagiarism detection process, which may include the use of systems such as 'Turnitin'. For further information see http://academicintegrity.curtin.edu.au/students/turnitin.cfm.

Additional information

Enrolment:

It is your responsibility to ensure that your enrolment is correct - you can check your enrolment through the eStudent option on OASIS, where you can also print an Enrolment Advice.

Supplementary/Deferred Exams:

Supplementary and deferred examinations granted by School of Biomedical Science will be held in the week beginning….. Notification to students will
be made after the your Schools’ Board of Examiners meeting via the Official Communications Channel (OCC) in OASIS.

It is the student’s responsibility to check their OASIS account for official Curtin correspondence on a weekly basis. If your results show that you have been awarded a supplementary or deferred exam you should immediately check your OASIS email for details.

Please note the following:

1. …

**Student Rights and Responsibilities**

It is the responsibility of every student to be aware of all relevant legislation and policies and procedures relating to his or her rights and responsibilities as a student. These include:

- the Student Charter
- the University’s Guiding Ethical Principles
- the University’s policy and statements on plagiarism and academic integrity
- copyright principles and responsibilities
- the University’s policies on appropriate use of software and computer facilities

Information on all these things is available through the University’s “Student Rights and Responsibilities” website at: [students.curtin.edu.au/rights](http://students.curtin.edu.au/rights).

**eVALuate**

We welcome feedback as one way to keep improving this unit. Students are encouraged to give unit feedback through eVALuate, Curtin’s online student feedback system (see [http://evaluate.curtin.edu.au/info/index.cfm](http://evaluate.curtin.edu.au/info/index.cfm)).
**Program calendar**

<table>
<thead>
<tr>
<th>Week</th>
<th>Class Date</th>
<th>Lecture 10 – 12 noon</th>
<th>Laboratory 2 – 4 pm</th>
<th>Films 1 – 2 pm</th>
<th>Asses’nt Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.</td>
<td>23 Feb</td>
<td><strong>“Dating The Dreamtime”</strong></td>
<td>Skeletal Anatomy</td>
<td>“First Arrivals”</td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>2 Mar</td>
<td>Dating Methods</td>
<td>Laboratory 2 – 4 pm</td>
<td>“The Whale With Legs”</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>9 Mar</td>
<td>First Life</td>
<td>Age, Sex, Size</td>
<td>“First Arrivals”</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>16 Mar</td>
<td>Evidence For Evolution</td>
<td>*Museum 1</td>
<td>“Judgement Day”</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>23 Mar</td>
<td>Theories Of Evolution</td>
<td>*Museum 2</td>
<td>“The Link”</td>
<td>Ass 1</td>
</tr>
<tr>
<td>5.</td>
<td>30 Mar</td>
<td>Primate Evolution</td>
<td>Reconstructing Extinct Primates</td>
<td>“The Link”</td>
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<tr>
<td>6.</td>
<td>6 Apr</td>
<td>Good Friday</td>
<td></td>
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<td>7.</td>
<td>13 Apr</td>
<td>Tuition Free Week</td>
<td></td>
<td></td>
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<tr>
<td>8.</td>
<td>20 Apr</td>
<td>Early Homininds</td>
<td>Diet &amp; Teeth</td>
<td>“The Ape That Got Lucky”</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>27 Apr</td>
<td>Hominid Behaviour</td>
<td>Upright Posture</td>
<td>“The Ape That Stood Up”</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>4 May</td>
<td>Early Homo</td>
<td>Homo</td>
<td>“Out From Africa”</td>
<td>Ass 2</td>
</tr>
<tr>
<td>11.</td>
<td>11 May</td>
<td>Archaic Homo</td>
<td>Cladistics</td>
<td>“Into Europe”</td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>18 May</td>
<td>Modern Homo</td>
<td>Character Analysis</td>
<td>“Origins”</td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>25 May</td>
<td>The Final Spread</td>
<td>Overview</td>
<td>“The Last Frontiers”</td>
<td>Ass 3</td>
</tr>
<tr>
<td>14.</td>
<td>1 June</td>
<td>Study Week</td>
<td></td>
<td></td>
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<tr>
<td>15.</td>
<td>8 June</td>
<td>Exams Week 1</td>
<td></td>
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<tr>
<td>16.</td>
<td>15 June</td>
<td>#Exams Week 2</td>
<td></td>
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</tbody>
</table>

* half the group will attend one session, the other half will do work at Curtin. The next session will reverse the procedure

# Exams normally held on the last Friday of Week 2 and will include the Practical Test