

SYLLABUS
Anthropology 301 (25840-25890)

**Introduction to Physical Anthropology
2003**

Spring

Web site: <http://courses.utexas.edu>
OR http://www.utexas.edu/courses/phisanthro/ANT301_Lecture/index.html

Email: ant301@uts.cc.utexas.edu

INSTRUCTORS:

Professor:

Rob Scott
Office: EPS 2.104
Office hours: Mon. 3:00-4:00 and by appointment
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Teaching Assistants:

David Raichlen (*Head Teaching Assistant*)
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INTRODUCTION

Why are humans unique in so many features; in having culture and language; in being bipedal; in the way we gather our food, and its extraordinary range; in our social and sexual behavior and its variability? This course examines patterns of anatomical, behavioral, and genetic similarities and differences among living primates and humans, and the evidence for human evolution as reconstructed from the fossil record. A wide range of evidence from the natural and social sciences is presented to understand present and past anatomical and behavioral adaptations, and to view humans and our ancestors as members of diverse animal and plant communities. The study of physical anthropology is eclectic, requiring many kinds of knowledge. Our goal is to understand the place of humans in the world.

Laboratories are an integral part of the course and are designed to closely follow the lecture schedule.

WEB SITE: <http://courses.utexas.edu>

To use the course Blackboard site, go to <http://courses.utexas.edu>. Here you will select the login button located in the upper left portion of the screen. Once you have logged in, you will see all of your classes listed, and you simply click on Ant 301 to access the course page.

To access the Blackboard web site, students must have and use their UT EID number and password (go to https://utdirect.utexas.edu/nlogin/eid_suite/general/index.WBX to access your EID). To use Blackboard you will need:

- A Web browser: Netscape Navigator (4.7 or higher) or Internet Explorer (5.0 or higher).

Free downloads of both programs are available.

- An e-mail account and the knowledge of how to send and receive e-mail (go to <http://www.utexas.edu/computer/email.html>)
- The ability to navigate the Web (use a browser), and handle multiple open windows
- The ability to open, close and save files and attachments

To learn how to use Blackboard students can go to the tutorial at <http://www.utexas.edu/cc/blackboard/tutorials/student/>

LECTURE: Monday and Wednesday, 2:00 - 3:00 pm, in JES A121A

LABORATORY SECTIONS: Scheduled for two hours each week in EPS 2.102

<i>Monday</i>	<i>Tuesday</i>	<i>Wednesday</i>	<i>Thursday</i>	<i>Friday</i>
10 am-12 pm	9-11 pm	10 am-12 pm	1-3 pm	12-2 pm
4-6 pm		4-6 pm	4-6 pm	3-5 pm
7-9 pm		7-9 pm		

PREREQUISITES

This is an introductory course and there are no prerequisites. Lectures and laboratories will cover the basic concepts that are required to understand the material. A science background is not necessary for the successful completion of the course.

MATERIALS:

Required Reading:

- *Introduction to Physical Anthropology*, Jurmain, R., et al. 2003, 9th ED
OR
- *Introduction to Physical Anthropology*, Jurmain, R., et al. 2003, 8th ED
- *Virtual Laboratories for Physical Anthropology on CD-ROM*, Kappelman 2003, version 3.0.
- *Supplementary Required Reading*, These brief articles are required reading and will be covered on the exams. They are available on the course web site and are on reserve at the UGL.
- *Supplementary Reading Options*, One of the following four popular books is required reading. Each student may choose which book to read. There will be one question on the Final Exam relating to each book and each student will be required to answer one of these questions. Answering multiple questions may result in extra credit. The question for each book will be worth varying credit based on its length and difficulty.

Goodall, J. *In the Shadow of Man*

Leakey, R. *The Sixth Extinction: Patterns of Life and the Future of Humankind*

Diamond, J. *Guns, Germs, and Steel: The Fates of Human Societies*

Kalb, J. *Adventures in the Bone Trade: The Race to Discover Human Ancestors in Ethiopia's Afar Depression*

The reading assignments are listed on the lecture schedule that follows. We suggest that you skim the textbook and the CD during the first week of the semester in order to acquaint yourself with the format and the direction of the course.

AREA CREDIT: Area B or C

GRADING

There will be two Exams during the course of the semester and a cumulative Final during finals week. The Final Exam will be a pencil and paper exam and will consist of a variety of question formats including multiple choice, matching, true and false, short answer, and short essay. The Final Exam will include questions over the Supplementary Required Readings. It will also include a choice of questions over the Supplementary Reading Options and you will be required to answer a question on one of these books. You may read multiple books to earn extra credit and longer books will be worth more credit. The Final Exam is cumulative and is worth 20% of your total grade.

The two Exams will consist of two parts: 1) a Lab Practical, and 2) a Lecture Test. Both parts of each of these Exams will be given during your regularly scheduled lab period for the week of the Exam. The Lab Practical will be over lab materials and you will require identification and/or analysis of lab materials. Each Lab Practical will consist of stations where each student will have one to two minutes.

The Lecture Test portion of each Exam will immediately follow the Lab Practical portion of the exam. The Lecture Test will include true/false, multiple choice questions, and matching type questions and will be administered by computer. Lecture Test will be divided into two parts. Part one of the Lecture Test will consist of true/false questions and multiple choice questions with 4 answer choices. To pass the course, each student will be required to earn a 90% on part one of each Lecture Test. Students who do not earn a 90% on their first attempt must retest over the web following the Exam week until they earn a 90%. For purposes of assigning grades for part one of the Lecture Test, all students will receive the better of 85% or their score on their first attempt.

The second part of each Lecture Test will consist of multiple choice questions and matching type questions. No minimum score is required and students will be assigned a grade based on their first and only attempt. Lecture Test #2 will include a 1 to 2 page take-home essay.

The final grade will consist of a lecture portion (60%) and a laboratory portion (40%):

<u>Laboratory Portion</u>	<u>Percent of Final Grade</u>
Laboratory assignments, quizzes, and participation*:	20 %
Laboratory practical #1	5%
Laboratory practical #2	<u>15%</u>
Total	40%
<u>Lecture Portion</u>	
Lecture Test #1 (computer-based exam)	20 %
Part #1 (true/false and multiple choice)	10%
Part #2 (multiple choice and matching)	10%
Lecture Test #2 (computer based exam and take-home essay):	20 %
Part #1 (true/false and multiple choice)	10%

Part #2 (multiple choice, matching, and take home essay)	10%
Final Examination (cumulative pencil and paper exam)	<u>20 %</u>
Total	60%

* Includes a combination of problem sets, short quizzes, and class participation.

LEARNING GOALS

- Understand the biology, ecology and behavior of a number of living primate species, including humans.
- Understand the application of the scientific method (*i.e.*, how to construct and test a hypothesis).
- Understand the theory of evolution at both the molecular and organismic levels.
- Understand the nature of the fossil record and the geologic context of fossils.
- Understand the evidence for primate and human evolution.
- Understand how to reconstruct the biology, ecology and behavior of extinct human species

LECTURE, READINGS, AND EXAM SCHEDULE

Readings and CD ROM Assignments Guide

J9 *Introduction to Physical Anthropology*, Jurmain et al. 2003, **9th ED.**

Or

J8 *Introduction to Physical Anthropology*, Jurmain et al. 2003, **8th ED.**

CD *Virtual Laboratories for Physical Anthropology on CD-ROM*, Kappelman 2002, ver. 3.0.

R *Supplementary Required Reading*

S *Supplementary Reading Options (one of the following **must** be read)*

Goodall, J. *In the Shadow of Man*

Leakey, R. *The Sixth Extinction: Patterns of Life and the Future of Humankind*

Diamond, J. *Guns, Germs, and Steel: The Fates of Human Societies*

Kalb, J. *Adventures in the Bone Trade: The Race to Discover Human Ancestors in Ethiopia's Afar Depression*

A CD icon printed in the margins of the Jurmain, et al. textbook notes references to the CD materials and exercises. The Ninth edition of Jurmain et al. is expensive so alternate readings from the 8th Edition are also given.

Note on Supplementary Reading Options. The four books listed above as supplementary reading options will each have a question relating to them on the final exam. Each student must answer one of those questions and have read one of the four books. Answering multiple questions may result in extra credit. The question for each book will be worth varying credit based on its length and difficulty.

No laboratories this week.

Jan 13 Introduction: What is Physical Anthropology ?

J8: p. 6-17, 21-22

J9: p. 6-16, 19-20

CD: Lab 2: Genetics and Evolution of Human Populations

Jan 15 Evolution: Myths, Misconceptions, and Meaning

J8: Chapter 2- The Development of Evolutionary Theory

J9: Chapter 2- The Development of Evolutionary Theory

CD: Lab 2: Genetics and Evolution of Human Populations

No laboratories this week.

Jan 20 Martin Luther King Jr. Day holiday. **No class.**

Jan 22 Evolution: Myths, Misconceptions, and Meaning (continued)

J8: Chapter 2- The Development of Evolutionary Theory

J9: Chapter 2- The Development of Evolutionary Theory

CD: Lab 2: Genetics and Evolution of Human Populations

Formal laboratories begin this week.

Jan 27 Microevolution: Biological variation and genetics

J8: Chapter 3- The Biological Basis of Life

J9: Chapter 3- The Biological Basis of Life

CD: Lab 2: Genetics and Evolution of Human Populations

Jan 29 Microevolution (cont.):

J8: Chapter 4- Heredity and Evolution

J9: Chapter 4- Heredity and Evolution

CD: Lab 2: Genetics and Evolution of Human Populations

Feb 3 Macroevolution: Natural Selection, Speciation, Population biology

J8: p. 215-221

J9: p. 209-211

R: The Future of AIDS by Cowley, 1993

CD: Lab 2: Genetics and Evolution of Human Populations

Feb 5 Macroevolution (cont.)

J8: Chapter 14: Microevolution in Modern Human Populations

J9: Chapter 14: Microevolution in Modern Human Populations

Feb 10 Phylogenetic reconstruction: The ABCs of who we are (Animal Kingdom, Bones, and Cladistics)

J8: p. 197-205

J9: p. 185-195

CD: Lab 7, Part II

Feb 12 Phylogenetic reconstruction (cont.)

R: TBA

LECTURE TEST # 1 this week during regularly scheduled lab hours.

LAB PRACTICAL # 1 this week during regularly scheduled lab hours.

Feb 17 Non-human primates: Introduction to the Primate Order

J8: Chapter 5- An Overview of the Living Primates

J9: Chapter 5- An Overview of the Living Primates

Feb 19 Non-human primates: The Primate Order continued

J8: Chapter 5- An Overview of the Living Primates

J9: Chapter 5- An Overview of the Living Primates

Feb 24 Non-human primates: Primate behavior

J8: Chapter 6- Fundamentals of Primate Behavior

J9: Chapter 6- Fundamentals of Primate Behavior

Feb 26 Non-human primates: More on primate behavior

J8: Chapter 7- Models for Human Evolution

J9: Chapter 7- Models for Human Evolution

Mar 3 24 Non-human primates: Diet

R: Tooth use and the physical properties of food by Strait, 1997.

CD: Lab 5

Mar 5 Non-human primates: Locomotion

CD: Lab 3 and Lab 4

SPRING BREAK MARCH 10-15

Mar 17 The fossil record: (Dating, Evolution, Fossils, Earth History)

CD: Lab 7. Part I

Mar 19 The fossil record: (Dating, Evolution, Fossils, Earth History)

CD: Lab 7. Part I

Mar 24 Primate evolution -- Early primates

J8: pp. 205-215

J9: pp. 197-208

Mar 26 Miocene apes

CD: Lab 7, Part III and Part IV

Mar 31 Australopithecus: the first hominids

J8: pp. 256-269

J9: pp. 243-259

Apr 2 More Australopithecus: the first hominids

CD: Lab 8 and Lab 9

Apr 7 H. habilis: the first hominids and tool makers?.

J8: 270-292

J9: 260-280

CD: Lab 10

Apr 9 Homo erectus: New and improved hominids

J8: Chapter 11- *Homo erectus* and Contemporaries

J9: Chapter 11- *Homo erectus* and Contemporaries

LECTURE TEST # 2 this week during regularly scheduled lab hours.

LAB PRACTICAL # 2 this week during regularly scheduled lab hours.

Apr 14 Archaic *Homo sapiens* and neanderthals: more than just cave people

J8: Chapter 12- Neandertals and Other Archaic *Homo sapiens*

J9: Chapter 12- Neandertals and Other Archaic *Homo sapiens*

CD: Lab 12

R: TBA

Apr 16 Modern *Homo sapiens*: Where did modern humans come from?

J8: Chapter 13- *Homo sapiens sapiens*

J9: Chapter 13- *Homo sapiens sapiens*

No laboratories this week.

Apr 21 Modern *Homo sapiens*: Migrations into the New World

R: Kennewick Man

CD: Lab 12- Part I, Section B, Subsection 1

Apr 23 AAPA meetings. **No class.**

No laboratories this week.

Apr 28 Humans as primates : Modern Human Variation

BS: Chapter 15- Human Variation and Adaptation

R: AAPA Statement on Race

Apr 30 Contemplating the future of *Homo sapiens*

R: Remembering Malthus by Smail, 2002.

May 7 FINAL EXAM

LABORATORY SCHEDULE

Week & Dates	Lab title
1 (Jan 13-17)	No lab meeting. Work on <u>Lab 1: Genetics</u>* .
2 (Jan 20-24)	No lab meeting. Work on <u>Lab 1: Genetics</u>.
3 (Jan 27- 31)	Lab 2: Skeletal Anatomy
4 (Feb3-7)	Lab 3: Primate Diversity and Taxonomy
5 (Feb 10-14)	Lab 4: Cladistics. <u>Lab 1: Genetics</u> due on Friday, Feb 14.
6 (Feb 17–21)	No lab this week – Lecture Test #1 and Lab Practical #1 available during your regularly scheduled lab time.
7 (Feb 24-28)	**Lab 5: Primate Behavior: A First Hand View
8 (Mar 3-7)	Lab 6: Functional Morphology
9 (Mar 10-14)	Spring Break
10 (Mar 17- 21)	Lab 7: Fossil Primates
11 (Mar 24-28)	Lab 8: Fossil Hominids of the Genus <i>Australopithecus</i>
12 (Mar 31- Apr 4)	Lab 9: Fossil Hominids of the Genus <i>Homo</i>
13 (Apr 7-11)	Lab 10: Modern Humans and Neanderthals
14 (Apr 14-18)	No lab this week – Lecture Test #2 and Lab Practical #2 available during your regularly scheduled lab time.
15 (Apr 21-25)	No lab meeting (AAPA meeting).
15 (Apr 28-May 2)	No lab this week.

NOTES:

Labs begin on Monday, January 27.

Be sure to read the laboratory materials posted to the course website PRIOR to attending your lab. Assignments will also usually be available on the course website.

**** Lab 1: Genetics will not be completed during a formal meeting. Instead, the assignment is to complete Lab 2 of Virtual Laboratories for Physical Anthropology. A brief quiz on the lab must be completed on the web by Friday, February. 14.***

***** For Lab 4, the evening labs will meet at an earlier time during the day (to be arranged) in order to accommodate ARC hours.***