OXFORD COLLEGE Spring Semester 2012

ANTHROPOLOGY 200 NBB 201

Foundations of Behavior

ANTH_OX200 01J Crosslisted as NBB201

TuTh 1:00 pm - 2:15 pm Language Hall 201

Professor: Dr. Aaron Stutz

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Office Hours: BY APPOINTMENT ONLY - times available daily

FOUNDATIONS OF BEHAVIOR

This course introduces you to scientific inquiry into the <u>biological bases</u> of BEHAVIOR in animals, with a focus on humans.

LEARNING OBJECTIVES

- Define and understand <u>behavior</u>, considered in ecological context
- Explore how the biological processes of evolution shape behavior
- Examine the relationship between the biological concept of <u>behavior</u> with that of <u>adaptation</u>
- Explain in detail about how <u>human behaviors</u> have an evolutionary and ecological context, which helps us to understand our own evolution and place in nature

REQUIRED TEXTS:

The Human Strategy: An Evolutionary Perspective on Human Anatomy (2005), by John H. Langdon. Oxford University Press.

• Available at the Oxford College Bookstore

On Fertile Ground: A Natural History of Human Reproduction (2001),

by Peter T. Ellison. Harvard University Press.

Available at the Oxford College Bookstore

REQUIRED E-COURSE PACK:

Additional REQUIRED Readings will be posted on Anthro 200's Blackboard page.

To access the Blackboard course packs:

- go to http://classes.emory.edu
- log in and select Foundations of Behavior in your course links
- click on the Course Documents button on the upper left
- open or right-click on assigned PDF file for download
- the articles are included as PDF files, numbered to correspond with the coursepack readings listed in the syllabus

COURSE GRADES

The exams and assignments will be weighted as follows:

In Class participation: 8% Homework Assignments: 12%

Midterm Exam I: 10-25% (sliding scale)*
Midterm Exam II: 10-25% (sliding scale)*
Midterm Exam III: 10-25% (sliding scale)*
Midterm Exam IV: 10-25% (sliding scale)*

Final Reflective Essay: 10%

* The sliding scale for the exam weights means that the raw exam scores (out of 100% will be ranked 1-2-3-4, and they will correspondingly weigh 25%, 20%, 15%, and 10% for your final grade).

Final grades will be calculated on a percentage basis according to the weights shown above. They will then be converted to a +- letter scale. Grades are given so that:

IMPORTANT: The exams and the final reflective essay are MANDATORY. A failure to complete any one of these will result in a failing grade for the course.

JUST AS IMPORTANT: Unless you have a valid excuse that you present to me beforehand, all exam and due dates must be strictly adhered to. RARE EXCEPTIONS are granted under the following clear conditions: you have a valid, documented medical or family emergency. If you require special arrangements through Disability Services, or if you otherwise know ahead of time that you have a major schedule conflict, contact the professor as soon as possible to schedule an alternative exam. Be prepared to provide documentation.

ACADEMIC HONESTY:

All Oxford students are bound by the Oxford College Honor Code. The two most relevant Honor Code violations are cheating on exams and assignments and plagiarism. The standard penalty for a first cheating or plagiarism violation is an F in the course. However, other violations, such as giving false information to an instructor, may also lead to penalties that are just as serious. The Oxford College Honor Code outlines the details of possible violations; how suspected violations are reported; the procedures of investigation; your rights and responsibilities if you are accused of a violation by the Honor Council investigators; and the consequences of the full Honor Council finding that you have committed an Honor violation. Moreover, the Honor Code provides a detailed definition of plagiarism.

In fewer words: Read the Honor Code, carry out and support honest work by yourself and your classmates, ask the instructor or Honor Council leaders when you are unsure, and do not cheat or plagiarize.

KEY DATES TO REMEMBER:

Midterm Exam I -LANG201, in class, Thu February 2 Midterm Exam II -LANG201, in class, Thu March 1 LANG201, in class, Thu March 29 Midterm Exam III -LANG201, in class, Tue May 1 Midterm IV -SafeAssign - by NOON on May 9 **Final Reflective Essay -**

Reminder: ALL EXAMS TAKE PLACE IN LANG201

THIS SYLLABUS IS SUBJECT TO CHANGE AT THE PROFESSOR'S DISCRETION; ANY CHANGES WILL BE ANNOUNCED IN CLASS.

Anthropology 200 Spring 2012 **Syllabus**

I. Introduction: The Biological Foundation of Behavior is Evolution

Thu January 19 - Introduction: Evolution and Behavior

Tue January 24 - Is it adaptation yet?

e-Coursepack: 01-Mayr - How to Carry Out an Adaptationist

Program

02-Gould & Lewontin - the Spandrels of San

Langdon - Chapters 1 & 2 TEXT:

Thu January 26 - Behavior and Niche

e-Coursepack: 03-Hutchinson - Homage to Santa Rosalia

04-Whittaker et al - Niche, Habitat, Ecotope

Tue January 31 - The Human Niche

e-Coursepack: 05-Sigmund - Population Ecology and Chaos

06-Leonard - Food For Thought

Due in class: Definitions and Descriptions of Behavior, Adaptation, and

Niche - Diagram and Short Essay

Thu February 2 - Exam I - Covers Behavior, Adaptation, Natural Selection, Ecosystem, Species, Niche, and the Definition of the Human Niche

II. What Behaviors Are Adaptive in the Human Niche, and How Has the Human Body Evolved To Support Those Behaviors?

- Tue February 7 The Human Niche
 TEXT: Langdon Chapter 3
- Thu February 9 The Biomechanics of the Skull and Teeth
 - Text: Langdon Chapters 4 & 5
- Tue February 14 The Biomechanics of the Upper Limb Text: Langdon - Chapter 7
- Thu February 16 The Biomechanics of Bipedalism
 Text: Langdon Chapters 6, 8 & 9
- Tue February 21 Homeostasis, PART I: What Does Skin Do?
 - e-Coursepack: 07-Jablonski Evolution of Hairlessness

Text: Langdon - Chapter 13

Due in class: Definition and Description of <u>Key Human Behavioral</u> Adaptations – short essay and diagram

- Thu February 23 Homeostasis, PART II: What Do the Respiratory and Circulatory Systems Do?

 Text: Langdon Chapters 15 & 16
- Tue February 28 Homeostasis, PART III: Human Endurance Text: Langdon - Chapters 17 & 18

Thu March 1 - Exam II - Covers the Human Niche, Key
Behavioral Adaptations, Biomechanics, Chewing,
Bipedalism, and Homeostatic Systems, and Terrestrial
Endurance

III. Why Did We Evolve Big Brains?

Tue March 6 - Brain Basics

Text: Langdon - Chapter 10

Thu March 8 - Sensing With Our Brains: Seeing,

Balancing, and Hearing

Text: Langdon - Chapter 12

Due in class: Making Sense of the Brain assignment

Tue March 13 & Thu March 15 - NO CLASSES - SPRING BREAK

Tue March 20 - Evolving Large Brains

Text: Langdon - Chapter 11

e-Coursepack: 08-Dunbar - Brains and Group Life 09-Manhart- Myths in the Brain

Thu March 22 - Brains, Language, and Tools

e-Coursepack: 10-Stout et al - Language and Tool Making
11-Goren-Inbar - Archaeology and Evolution
of Cognition

Due in class: Social Brain assignment

Tue March 27 - REVIEW: Brain Adaptations to the Human Niche

Thu March 29 - Exam III - Covers the Human Niche, Key Anatomical and Physiological Adaptations, and Brain Adaptations

IV. What is Life History Theory? How Does it Help Us to Understand the Human Niche—and Adaptations to It?

- Tue April 3 Human Cooperation, Culture, and Its

 Ecological Impact
 e-Coursepack: 12-Hill et al. Cooperation, Culture, and
 - e-Coursepack: 12-Hill et al. Cooperation, Culture, and the Human Impact
- Thu April 5 Life History Theory An Introduction e-Coursepack: 13-Ross - Primate Life Histories 14-Kramer & Ellison - Life Histories and Growth
- Tue April 10 The Big Deal with Lactation

 Text: Ellison The Elixir of Life

 Due in class: Definitions and Diagrams of Life History Theory Key

 Concepts
- Thu April 12 Growing Up

 Text: Ellison Why Grow Up?
- Tue April 17 Environment, Work, and Reproduction
 Text: Ellison Balancing Act
- Thu April 19 Female and Male Reproductive Histories
 Text: Ellison The Arc of Life
 Ellison The Body Builders

Due in class: Summary of Key Aspects of Human Female Reproductive Development, Physiology, and Behavior

Tue April 24 - Human Life Histories as Intertwined Life Histories

Text: Ellison - Inc C. Langdon - Chapter 21 Ellison - The Journey and the Procession

Thu April 26 - REVIEW: Life History Theory, The Human Niche, and Embodied Adaptations

Tue May 1 - Exam III - Covers the Life History Theory, Human Reproductive Biology, and Human Reproduction and Investment in Offspring as Evolutionary Strategies

Conclusion: Developing an Evolutionary Perspective V.

Mon May 3 - Turn in Final Reflective Essay during the Final Exam period (SafeAssign - Due by NOON on Wed May 9)