

OXFORD COLLEGE  
Spring Semester 2010

**ANTHROPOLOGY 200  
NBB 201**

**Foundations of Behavior**

ANTH\_OX200 01J  
NBB\_OX201 01J

**TuTh 1:00 pm – 2:15 pm  
Language Hall 201**

**Professor: Dr. Aaron Stutz**

**Office: Language Hall 102 (Anthro Lab)**

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**Office Hours: BY APPOINTMENT ONLY – times available daily**

***FOUNDATIONS OF BEHAVIOR***

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

**LEARNING OBJECTIVES**

- Define and understand behavior, considered in ecological context
- Explore how the biological processes of evolution shape behavior
- Examine the relationship between the biological concept of behavior with that of adaptation
- Explain in detail about how human behaviors 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

**Disabilities Services:** Oxford College provides students with disabilities all reasonable accommodation for participating in educational programs, activities, or services. Students with disabilities requiring accommodation for any activities or requirements in Anthro 200 must register and consult with Emory University's Office of Disability Services. Please contact Karen Martucci, Director of Academic Services at Oxford College, for further information and assistance. **REMINDER:** It is your responsibility to provide official documentation of your right to disabilities related accommodation for class participation. We will work out any accommodations that are specific to the course. But we must do so as early in the semester as possible.

**Religious Holidays:** Your rather agnostic professor has full respect for religious practice and the personal, family, and community obligations that go with it. Please be prepared to share with me if you are going to miss any scheduled class activity due to observance of a religious holiday. And please let me know as soon as possible in the semester if any scheduled exam or other due date conflicts with a religious holiday that you observe. This way, we can make alternative arrangements early!

## **COURSE GRADES**

The exams and assignments will be weighted as follows:

**In Class Participation: 5%**

**Short Assignments: 5%**

**Group Presentation: 5%**

**Midterm Exam I: 20-30% (sliding scale)\***

**Midterm Exam II: 20-30% (sliding scale)\***

**Midterm Exam III: 20-30% (sliding scale)\***

**Final Portfolio: 10%**

**\* The sliding scale for the exam weights means that the raw exam scores (out of 100% will be ranked 1-2-3, and they will correspondingly weigh 30%, 25%, and 20% 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:**

<b>94 - 100</b>	<b>= A</b>
<b>&lt;94</b>	<b>= A-</b>
<b>&lt;92</b>	<b>= B+</b>
<b>&lt;89</b>	<b>= B</b>
<b>&lt;82</b>	<b>= B-</b>
<b>&lt;80</b>	<b>= C+</b>
<b>&lt;78</b>	<b>= C</b>
<b>&lt;72</b>	<b>= C-</b>
<b>&lt;70</b>	<b>= D+</b>
<b>&lt;68</b>	<b>= D</b>
<b>&lt;65</b>	<b>= F</b>

**IMPORTANT: The exams 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.

**KEY DATES TO REMEMBER:**

<b>Midterm Exam I -</b>	<b>LANG201, in class, Thu February 4</b>
<b>Midterm Exam II -</b>	<b>LANG201, in class, Thu March 4</b>
<b>Group Presentation -</b>	<b>online, 10 am, Thu March 25</b>
<b>Midterm Exam III -</b>	<b>LANG201, in class, Tue April 27</b>
<b>Final Portfolio -</b>	<b>LANG201, 2-4 pm, Mon May 3</b>

**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 2010  
Syllabus**

**I. Introduction: The Biological Foundation of Behavior is Evolution**

Thu January 14 - *Behavior and Evolution*

Tue January 19 - *Is it adaptation yet?*

Text: Langdon - Chapters 1 & 2

e-Coursepack: 01-Mayr - How to Carry Out an Adaptationist Program  
02-Gould & Lewontin - the Spandrels of San Marco

Thu January 21 - *Is it behavior yet?*

e-Coursepack: 03-Dawkins - The Selfish Gene, Chapter 3  
04-Dawkins - The Selfish Gene, Chapter 4

Tue January 26 - *Behavior and Niche*

e-Coursepack: 05-Hutchinson - Homage to Santa Rosalia  
06-Whittaker et al - Niche, Habitat, Ecotope

Due in class: Definition and Description of Behavior - Diagram and Short Essay

Thu January 28 - *From Niche and Community to Behavior and Population Dynamics*

e-Coursepack: 07-Sigmund - Population Ecology and Chaos  
08-Sigmund - Evolution of Sex

Tue February 2 - Model Behavior

e-Coursepack: 10-Sigmund - Evolutionary Game Theory

**Thu February 4 - Exam I - Covers Behavior, Adaptation, Natural Selection, Ecosystem, Species, Niche, Population Dynamics, Evolutionary Dynamics, and Evolutionary Game Theory**

## **II. What Is the Human Niche, What Behaviors Are Adaptive In It, and How Has the Human Body Evolved To Support Those Behaviors?**

Tue February 9 - *The Human Niche*

e-Coursepack: 11-Leonard - Food For Thought  
Text: Langdon - Chapter 3

Thu February 11 - *The Biomechanics of the Skull and Teeth*

Text: Langdon - Chapters 4 & 5

Due in class: Definition and Description of The Human Niche - Diagram and Short Essay

Tue February 16 - *The Biomechanics of the Upper Limb*

Text: Langdon - Chapter 7

Thu February 18 - *The Biomechanics of Bipedalism*

Text: Langdon - Chapters 6, 8 & 9

Tue February 23 - *Homeostasis, PART I: What Does Skin Do?*

Text: Langdon - Chapter 13

Due in class: Definition and Description of Key Human Behavioral Adaptations - short essay and diagram

Thu February 25 - *Homeostasis, PART II: What Do the Respiratory and Circulatory Systems Do?*

Text: Langdon - Chapters 15 & 16

Tue March 2 - *Homeostasis, PART III: Human Endurance*

Text: Langdon - Chapters 17 & 18

**Thu March 4 - Exam II - Covers the Human Niche, Key Behavioral Adaptations, Biomechanics, Chewing, Bipedalism, and Homeostatic Systems, and Terrestrial Endurance**

### **Week 9 - SPRING BREAK**

Tue March 9 & Thu March 11 - **NO CLASSES**

### **III. Why Did We Evolve Big Brains?**

Tue March 16 - *Brain Basics, PART I*

Text: Langdon - Chapter 10

Thu March 18 - *Brain Basics, PART II*

Text: Langdon - Chapter 10

Tue March 23 - *Evolving Large Brains*

Text: Langdon - Chapter 11

Thu March 25 - *Sensing With Our Brains: Seeing, Balancing, and Hearing*

Text: Langdon - Chapter 12

Due by 10 am: Upload Group Presentations on the Brain

#### **IV. The Foundations of Reproductive and Childrearing Behavior Are In Evolution - How Did Human Life History And Reproductive Behavior Evolve?**

Tue March 30 - *Sex and Sexuality in Humans*

Text: Langdon - Chapter 19 & 20

Thu April 1 - *The Big Deal with Lactation*

Text: Ellison - The Elixir of Life

Tue April 6 - *Growing Up*

Text: Ellison - Why Grow Up?

Thu April 8 - *Environment, Work, and Reproduction*

Text: Ellison - Balancing Act

Tue April 13 - *Female and Male Reproductive Histories*

Text: Ellison - The Arc of Life

Text: Ellison - The Body Builders

Thu April 15 - *Human Life Histories as Intertwined Life Histories*

Text: Langdon - Chapter 21

Ellison - The Journey and the Procession

Due in class: Definition and Description of Human Reproductive and Life History Strategies - short essay and diagram



Tue April 20 - *The Evolution of Cooperative Behavior*

e-Coursepack: 12-Nowak, May & Sigmund - Arithmetics of Mutual Help  
13-Sigmund - Chapter  
14-Wilson & Wilson - Evolution for "The Good of the Group"

Thu April 22 - *Human Cooperation, Culture, and Its Ecological Impact*

e-Coursepack: 15-Hill et al. - Cooperation, Culture, and the Human Impact

Due in class: Definition and Description of Prisoner's Dilemma and Group Selection - diagram and short essay

**Tue April 27 - Exam III - Covers the Evolution of the Brain, Human Reproduction and Life History Adaptations, and the Evolution of Human Cooperation**

## **V. Conclusion: Developing an Evolutionary Perspective**

**Mon May 3 - Turn in Final Portfolio during the Final Exam period (2-4 pm, LANG 201)**