

OXFORD COLLEGE
Spring Semester 2014

**ANTHROPOLOGY 200Q
NBB 201**

Foundations of Behavior

ANTH_OX200Q 10J (5323) & ANTH_OX200Q-01J (5324)
Crosslisted as NBB201

**TuTh 10:00 am – 11:40 pm & TuTh 1:40 pm – 3:20 pm
Language Hall 101**

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Office Hours: BY APPOINTMENT ONLY – times available MWF

INQUIRY INTO FOUNDATIONS OF BEHAVIOR

This course introduces you to scientific inquiry into the biological bases of BEHAVIORAL ADAPTATIONS in 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:

On Fertile Ground: A Natural History of Human Reproduction (2001),
by Peter T. Ellison. Harvard University Press.

- Available at the Oxford College Bookstore

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

- Available at the Oxford College Bookstore

REQUIRED E-COURSE PACK:

Additional REQUIRED Readings will be posted on Anthro 200Q'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 Assignments (based on presence and completion): 20%

Midterm Exam I: 10-30% (sliding scale)*

Midterm Exam II: 10-30% (sliding scale)*

Midterm Exam III: 10-30% (sliding scale)*

Individual Essay on Niche and Adaptation: 5%

Individual Essay on the Human Niche: 10%

Final Reflective Essay: 5%

*** 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%, 20%, and 10% toward 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:

94 - 100	= A
<94	= A-
<92	= B+
<89	= B
<82	= B-
<80	= C+
<78	= C
<72	= C-
<70	= D+
<68	= D
<63	= F

IMPORTANT: The exams and the essays 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. Please read it.

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 -	LANG101, in class, Tue January 28
Midterm Exam II -	LANG101, in class, Thu February 27
Midterm Exam III -	LANG101, in class, Thu March 27
Final Essays -	SafeAssign by 11:59 pm, Fri May 2

Reminder: ALL EXAMS TAKE PLACE IN CLASS IN LANG101

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

PLEASE READ THROUGH THE READINGS ONCE BEFORE THE CLASS PERIOD FOR WHICH THEY ARE SCHEDULED.

Anthropology 200Q Spring 2014 Syllabus

I. Introduction: The Biological Foundation of Behavior is Evolution

Tue January 14 – *Introduction: Evolution and Behavior*

Thu January 16 – *Is it adaptation yet?*

TEXT: Langdon – Chapter 1

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

02-Gould & Lewontin – the Spandrels of San Marco

recommended: TEXT – Langdon – Chapter 2

Tue January 21 – *Behavior and Niche*

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

04-Whittaker et al – Niche, Habitat, Ecotope

web reading: Niche Construction Theory (NCT)

INTRO – <http://lalandlab.st-andrews.ac.uk/niche/index.html>

Rethinking Adaptation – <http://lalandlab.st-andrews.ac.uk/niche/Rethinking.html>

Niche Construction and Evolution – <http://lalandlab.st-andrews.ac.uk/niche/Evolution.html>

Criticisms of NCT – <http://lalandlab.st-andrews.ac.uk/niche/Criticism.html>

Thu January 23 – *Embodied Cognition – Being in the Environment*

e-Coursepack: 06-Humphrey – A History of the Mind
07-Clark – The Active Body

IN-CLASS EXERCISE: Behavior, Adaptation, and Niche in Evolution

Tue January 28 – Exam I – *Covers Behavior, Adaptation, Natural Selection, Ecosystem, Species, Niche, and Embodied Cognition*

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

Thu January 30 – *Evolution of the Human Niche*

TEXT: Langdon – Chapter 3

e-Coursepack: 08-Leonard – Food For Thought

web reading: What Evolves in Evolution?

<https://blogs.emory.edu/bioculturalevolution/2013/07/04/what-evolves-in-evolution/>

The Human Niche

<https://blogs.emory.edu/bioculturalevolution/the-human-niche-an-overview/>

In-Class Exercise: Co-Evolution of Elements of the Human Niche

Tue February 4 – *The Biomechanics of the Skull and Teeth*

TEXT: Langdon – Chapters 4 & 5

In-Class Exercise: Practice and Peer Evaluation of Niche Co-Evolution Essay

Thu February 6 – *The Biomechanics of the Upper Limb*

TEXT: Langdon – Chapter 7

Tue February 11 – *The Biomechanics of Bipedalism*

TEXT: Langdon – Chapters 6, 8, & 9

In-Class Exercise: Embodied Behavior in the Niche – An Exploration of Human Niche Construction and Adaptation

Thu February 13 – *Homeostasis, PART I: What Does Skin Do?*

TEXT: Langdon – Chapter 13

e-Coursepack: 09-Jablonski – Evolution of Hairlessness

Tue February 18 – *Homeostasis, PART II: What do the Respiratory and Circulatory Systems Do?*

TEXT: Langdon – Chapters 15 & 16

IN CLASS EXERCISE: Review of Anatomical and Physiological Adaptations

Thu February 20 – *Homeostasis, PART III: Human Endurance*

TEXT: Langdon – Chapter 17 & 18

DUE on SafeAssign at 9 am: Essay on Niche and Adaptation

Tue February 25 – *REVIEW: The Human Body in Evolutionary Perspective*

e-Coursepack: 10-Clark – The Negotiable Body

Thu February 27 – 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 4 – *Brain Basics*

TEXT: Langdon – Chapter 10

e-Coursepack: 11-Damasio – Of Appetites and Emotions

Thu March 6 – *Sensing with our Brains: Seeing, Balancing, and Hearing*

TEXT: Langdon – Chapter 12

e-Coursepack: 12-Damasio – Feelings

IN CLASS EXERCISE: Making Sense of the Brain

Tue March 11 & Thu March 13 - **NO CLASSES - SPRING BREAK**

Tue March 18 - *Evolving Large Brains*

TEXT: Langdon - Chapter 11

e-Coursepack: 13-Dunbar - Brains and Group Life
14-Manhart- Myths in the Brain

Thu March 20 - *Brains, Language, and Tools*

e-Coursepack: 15-Stout et al - Language and Tool Making
16-Goren-Inbar - Archaeology and Evolution
of Cognition

IN CLASS EXERCISE: The Social and Embodied Brain

Tue March 25 - *The Brain in the Human Niche*

e-Coursepack: 17-Tomasello - Primate Intentional
Communication
18-Tomasello - Human Cooperative
Communication

**Thu March 27 - Exam III - Covers the Human Niche 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 1 - *Human Cooperation, Culture, and Its
Ecological Impact*

e-Coursepack: 19-Hill et al. - Cooperation, Culture, and
the Human Impact
20-Lieberman - Evolution of Human Brains and
Bodies

Thu April 3 - *Life History Theory - An Introduction*

e-Coursepack: 21-Ross - Primate Life Histories
22-Kramer & Ellison - Life Histories and Growth

IN-CLASS EXERCISE: Life History Theory and Embodied Capital

Tue April 8 - *The Big Deal with Lactation*

Text: Ellison - The Elixir of Life

Thu April 10 - *Growing Up*

Text: Ellison - Why Grow Up?

Tue April 15 - *Environment, Work, and Reproduction*

Text: Ellison - Balancing Act

IN-CLASS EXERCISE: Transitions and Trade-Offs in Life Histories

Thu April 17 - *Female and Male Reproductive Histories*

Text: Ellison - The Arc of Life
Ellison - The Body Builders

Tue April 22 - *Human Life Histories as Intertwined Life Histories*

Text: Ellison - The Journey and the Procession

IN-CLASS EXERCISE: Life History Adaptation and Niche Construction

VI. Conclusion: Developing an Evolutionary Perspective

Thu April 24 - **Final Discussion - Brain, Body, Environment, & Behavior in Human Evolution**

Fri May 2 - Turn in Final Essays on SafeAssign by 11:59 pm (that is, before midnight when it turns Saturday)

- **Adaptation in the Human Body**
- **Final Reflective Essay**