

THE BIOLOGICAL BASES OF HUMAN BEHAVIOR

ANTHROPOLOGY 1005

T-Thu 4.45 – 6.00 PM

Instructor

Dr. Carson Murray Room 302, 2114 G Street cmmurray@gwu.edu 202-994-4170
OFFICE HOURS: Wednesday, 2.00-4.00 PM

Teaching Assistants

Serena Bianchi Room 450, Rome Hall sbianchi@email.gwu.edu
OFFICE HOURS: Tuesday, 2.30-4.30 PM

Kathryn Ranhorn Room 201, 2114 G Street ranhorn@gwu.edu
OFFICE HOURS: Tuesday, 3.00-4.00 PM and Wednesday, 1.00 – 2.00 PM

Class Synopsis

Are humans so special? We all have a fundamental interest in human behavior and understanding how we evolved to be such a unique (or not) species. In this class, we will examine the biological basis of human behavior. We will consider human behavior from ecological, biological, and evolutionary perspectives. Key topics include dietary choices, parenting, conflict and cooperation, sexual reproduction, the human mind, and culture. For each, we will consider our own behavior in comparison to our closest living relatives, the non-human primates, to see where we fall in the primate continuum. At the end of the class, you will have a firm understanding of how humans evolved, if and how we are unusual, and if and how we are predictable.

Required Texts and Reading

This course will include readings from 3 books and peer-reviewed publications. The books are available in the George Washington University bookstore, but you are responsible for downloading the articles yourself from the citations at the end of the syllabus.

Books that will be covered in this class include:

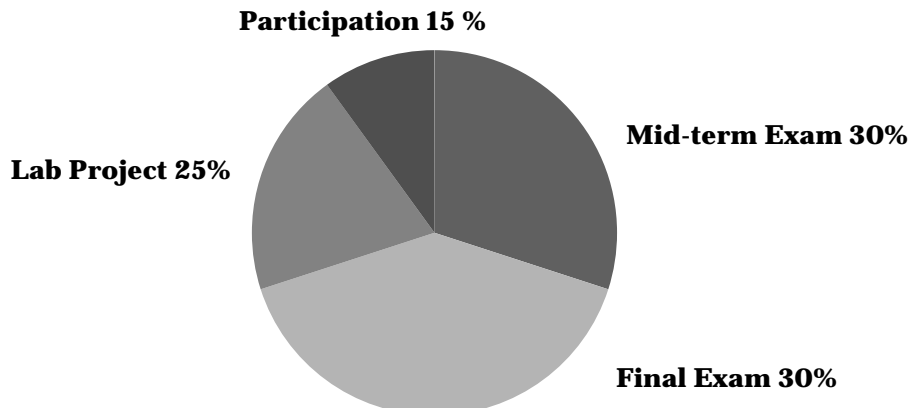
1. Mind the Gap: Tracing the Origins of Human Universals, edited by Kappeler and Silk, 2009.
NOTE: Mind the Gap is available online through the GW library system
2. A Primate's Memoire: A Neuroscientist's Unconventional life Among Baboons, Sapolsky, 2002.
3. The Red Queen: Sex and the Evolution of Human Nature, Ridley, 2003.

You also need to purchase the lab manual at MinuteMan Press (2000 K. Street NW).

Class Assignments

Final Grades

Your final grade will be determined as follows:



Exams (totaling 60%)

The mid-term exam will be comprised of a mixture of matching and short-answer questions. The **final exam** will be comprehensive and will include multiple choice questions, short-answer questions, and 1 essay. The essay will demonstrate your ability to think critically about the concepts learned over the course of the semester. We will give you a list of 2-3 possible essay questions on the last day of class; you should prepare for all, but we will ask one.

Lab project (25%)

While I am counting on you all to be involved in lecture discussions, debates, and brainstorming, the lab section is a much smaller venue for students to learn from each other. With that in mind, we have designed group project through which you will design and conduct a comparative study on some aspect non-human primate and human behavior. Your grades will be assessed based on a final written research report and group presentation. Serena and Kathryn will describe this project in more detail during the first lab section.

Participation (15%)

Your participation grade is determined by both your attendance and active participation in the lab sections (10%), and in the blackboard discussion stream (5%). Non-completion of any lab is unacceptable. To avoid missed points, you must notify your instructor as per the policy below. Your ability to make up the lab depends upon the absence being acceptable. If deemed so, the TA may allow you to attend one of their office hours to make up the lab. Failure to complete a lab through this make-up policy will result in 1 lost point from your final grade for each missed lab.

The subject material of this course (that is, are we so special?) lends itself to thought-provoking and even controversial discussion. We will post questions periodically and expect you to take up the thread of the discussion; you can weigh in with your opinions, tell us our question was crazy (but explain why!), offer up new questions to your peers, and post links to pertinent video or news articles. We expect each student to make at least two posts during the semester.

The most fundamental class ethic is one of respect. You will receive an automatic zero for any comment that fails to maintain the highest level of respect and collegiality.

Class Policies

Attendance

You are expected to attend each class and lab section. If the absence is planned (e.g. in religious observance), you should write your Teaching Assistant at least one week before the absence. If the absence is un-planned, you should write your Teaching Assistant on the day of the absence. More than one missed session without notification will result in a point deducted from your participation grade.

Office Hours

We are here as a resource both in and outside of class! Come see us if you have questions, during our regularly scheduled office hours. If you cannot make them, please write us in advance to schedule another time, but please understand that we all have busy schedules so may not be as flexible as you would like.

Make-up Exams

No regular make-up exams will be given. Rescheduling will be considered on an individual basis **prior** to the exam date. The dates for the exams are posted on the course schedule, below. Please make travel plans accordingly. If you miss an exam, documentation verifying a medical or other emergency is required.

Academic Integrity

We are committed to maintaining the very highest level of academic integrity in our class. This is part of the over-arching commitment of George Washington University. We therefore have a zero tolerance policy for any violation. **Please read the policy online and turn in a signed paper at your discussion section that acknowledges you have read it and agree to its terms in this class.**

Class Schedule, Topics, and Assignments

WEEK	DATE	TOPIC	READINGS & ASSIGNMENTS
How does behavior evolve? Rehashing the age-old nature versus nurture debate into nature AND nurture.			
1	Jan 16	NO LAB. Martin Luther King Day	
	Jan 17	Darwinian Evolution.	Mind the Gap, chapter 1
	Jan 19	Adaptation and Fitness. Nature and Nurture.	
Where do humans fit among their primate relatives?			
2	Jan 23	LAB 1: Finding the answers: The Scientific Method	
	Jan 24	Primate taxonomy.	Primate's Memoire, read in entirety before the mid-term
	Jan 26	Primate socio-biology. Primate models for human behavior.	
3	Jan 30	LAB 2: How can you study the biological bases of behavior?	Reading: Marlowe, 2005
	Jan 31	Wherefrom humans? Changes along the hominid lineage. Human Behavioral Ecology.	Primate's Memoire continued
	Feb 2	The great shift. The "Social Brain"	
Why do we cooperate? Are we nicer than our relatives?			
4	Feb 6	LAB 3: Human origins.	
	Feb 7	Cooperation in humans and non-human primates.	Mind the Gap, chapter 10
	Feb 9	Levels of selection and 'explaining' altruistic behavior.	
5	Feb 13	LAB 4: Sharing and cooperation.	Assignment: Presentation on Project Methods
	Feb 14	Kin selection across animals and in humans.	Silk, 2007
	Feb 16	Reciprocal altruism. I will scratch your back if...	
The other side of the coin: What are we fighting for?			
6	Feb 20	NO LAB. Presidents' Day	
	Feb 21	Intra and inter sexual selection.	Mind the Gap, chapter 3, 8, 9
	Feb 23	Modes of competition.	
7	Feb 27	LAB 5: Intelligence, gender differences in intelligence	Reading: Rose, 2009
	Feb 28	Which sex disperses? Non-human primates.	Mind the Gap, chapters 5-6
	March 1	Competition in humans. What are we fighting for? Intra-sexual competitive regimes. Differences in competitive style.	
8	March 5	LAB 6: Primate cognition and communication.	Reading: Jensen et al., 2007
	March 6	Inter-sexual competition. Video: The Science of Sex Appeal, Discovery Channel, pre-exam Q & A	Mind the Gap, chapter 11
	March 8	Mid-term Exam	
SPRING BREAK! March 12 – 17, 2012			
Sex and the Evolution of Human Nature			
10	March 19	LAB 7: What determines a preference in a mate? I: Physical factors	
	March 20	Sexual competition. Why have willow tails? Direct and indirect competition.	The Red Queen, chapters 3-5
	March 22	Variation in mating systems.	
11	March 26	LAB 8: What determines a preference in a mate? II: Hormones, health, and culture	Reading: Bailey and Zuk, 2009
	March 27	Mate choice in non-human primates.	The Red Queen, chapters 6-9
	March 29	Human mate choice. Homosexuality.	
Human Fathering (and mothering of course)			
12	April 2	LAB 9: Kin support, society, and parental investment.	Reading: Callaway

12	April 3	Models of parental investment. Comparative studies.	Mind the Gap, chapter 4, 22
	April 5	Allo-parenting.	
13	Apr 9	LAB 10: Time to work on Projects	Reading: Muller et al., 2009 Assignment: Draft of Introduction and Methods
	April 10	Infanticide in animals and in humans.	
	April 12	Variation in human male investment in offspring.	
Does human culture exert a bigger influence on behavior than in other species?			
14	April 16	LAB 11: Cultural evolution, transmission, and language.	Mind the Gap, chapters 20-21
	April 17	Culture in animals.	
	April 19	Culture in humans.	
15	April 23	LAB 12: In-lab project presentations (15 minutes per group with 5 minutes for questions.)	Mind the Gap, chapters 13-14
	April 24	Communication in non-human primates.	
	April 26	The importance of language in human evolution.	

REFERENCES (You should download these articles yourself)

- Bailey, N.W. and M. Zuk. 2009. Same-sex sexual behavior and evolution. *Trends in Ecology and Evolution* 24: 439-446.
- Jensen, K., Call, J., and M. Tomasello. 2007. Chimpanzees are vengeful but not spiteful. *Proceedings of the National Academy of Sciences* 32: 13046-13050.
- Marlowe, F.W. 2005. Hunter-gatherers and human evolution. *Evolutionary Anthropology* 14: 54-67.
- Muller, M.N., Marlowe, F.W., Bugumba, R., and P.T. Ellison. 2009. Testosterone and parental care in East African foragers and pastoralists. *Proceedings of the Royal Society, Biological Sciences* 276: 347-354.
- Rose, S. 2009. Darwin 200: Should scientists study race and IQ? No: Science and society do not benefit. *Nature* 457: 786-788.
- Silk, J. 2007. Social components of fitness in primate groups. *Science* 317: 1347-1351.
- Callaway, E. 2010. "Grandmother hypothesis" takes a hit, *Nature online*.

NOTES:

The above scheduled should be considered tentative, and we will adjust as necessary to create the best class possible!

All reading assignments (with the exception of Week 1) should be completed before the Tuesday class.

Complementary lab/discussion sections will be held each week. You should be enrolled in one of the following sections: Monday 10-11:50 AM, 12:00-1:50 PM, or 2:00-3:50 PM. Your Teaching Assistant will review expectations and framework in the first section of the semester.

All that said, we look forward to a thought-provoking semester!!