

COURSES TAUGHT BY RICHARD R. LAWLER

This document contains descriptions, from each course syllabus, of the classes that I currently teach or have taught in the past.

INTRODUCTION TO BIOLOGICAL ANTHROPOLOGY

Hello and welcome to Introduction to Biological Anthropology. Hello and welcome to ANTH 196: Biological Anthropology. This course is an introduction to the field of Biological Anthropology. In this course we will look at the place of humans within the animal kingdom. Accordingly, we will cover topics that allow us to fully understand our place in nature. Such topics include basic transmission and population genetics, the processes of evolution, primate diversity and socioecology, primate and human evolution, and modern human variation. After completing this course, in addition to the specific subject matter and lecture topics, students should also be fluent in these broader concepts:

- Describe the methods of inquiry that lead scientific knowledge and be able to distinguish science from pseudoscience.
- Use theories and models as unifying principles that help us understand natural phenomena and make predictions.
- Recognize the interdependence of applied research, basic research, and technology, and how they affect society.
- Illustrate the interdependence between developments in science and social and ethical issues.
- Use graphical, symbolic, and numerical methods to analyze, organize, and interpret natural phenomena.
- Discriminate between association and causation, and identify the types of evidence used to establish causation.
- Evaluate the credibility, use, and misuse of scientific information in scientific developments and public-policy issues.
- Formulate hypotheses, identify relevant variables, and design experiments to test hypotheses.

MONKEY LOVE: THE EVOLUTION OF PRIMATE SEXUALITY

Hello and welcome to Monkey Love. Reproduction, no doubt, is the currency of evolutionary change. Thus from an evolutionary perspective sexual reproduction is a measure of Darwinian success. However, decades of research on nonhuman primates has shown that sexual behavior is deployed across a variety of contexts, not all of which pertain to reproduction (similar to humans). This course surveys the sexual behaviors, sexual anatomy, and sociosexual interactions of nonhuman primate species from a comparative perspective. Almost all topics pertaining to sexuality will be covered in some form: physiological and endocrinological bases of sexuality; courtship behaviors, neurological foundations of sexuality; homosexuality; genital morphology; autoerotic behaviors; mating systems; male and female reproductive strategies; and various topics emanating from the theory of sexual selection including sperm competition, infanticide, sexual coercion, and the evolution of sexual dimorphism. Where appropriate, we will also draw comparisons with human sexuality, and roughly the last third of the course material focuses on human sexuality as it pertains to sexual differentiation, putative and gender differences in cognition, intersex conditions, reproduction, endocrinology, and menopause.

HUMAN EVOLUTION

Hello and welcome to Human Evolution. The origins of our own lineage from some ape-like creature is as fascinating and controversial as it is true. Human evolution provides a crucial theoretical foundation for all of biological anthropology, and almost all other anthropological subdisciplines. This course consists of an in-depth look at human origins and evolution. The first 1/3 of the course is an overview of the theory and techniques that paleoanthropologists use to interpret the fossil record. The second portion of the course surveys the fossil record of primate evolution up to the evolution of our own genus *Homo*. In surveying the fossil record, we will pay particular attention to reconstructing the evolutionary relationships among fossil taxa, as well as reconstructing their behaviors, environments, and social systems. We also consider other relevant evidence for human evolution including archaeological, demographic, and genetic data. By the end of the course, students should have a thorough knowledge of the human fossil record. In addition, students should also be fluent in the various ideas and hypotheses that pertain to the evolution of humans. Students will also have a more solid understanding of the evolutionary processes that led to the evolution of the human skeleton and human cognition.

ANTHROPOLOGICAL GENETICS

Hello and welcome to Anthropological Genetics. This course consists of an in-depth look at the genetics of human evolution and human diversity. There will be two parallel themes that run throughout the course. One theme is simply the “facts” of genetics as they are used to study human diversity and evolution. In this regard, Monday and Wednesday lectures will consist of lectures that lay out the basic theory and methods used by geneticists to examine topics such as *the origin of modern humans, heritability of intelligence, levels of genetic diversity between chimps and humans, genetic patterns of disease resistance, behavioral and forensic genetics*, etc. The other theme of the course (Friday lectures/discussions) pertains to the fact that human genetics often intersects with social issues and thus one should not study human genetics without considering the wider social implications of the subject matter. For example, (unfounded) genetic studies have attempted to show that some ethnic groups are inferior to others, while other genetic studies determine the genetic basis of traits such as intelligence, homosexuality, political persuasion. These topics, and others like them, carry hefty social implications; therefore, it is important to study human genetics in a wider historical, social, and ethical context.

To this end, we will cover two major themes in this course. One theme is a straight-up, nuts-and-bolts approach to the theory and methods of human genetics; this theme will be covered via powerpoint lectures, exams, and a problem set. The other theme will be covered by outside readings, lectures, and discussions, and looks at the social context of human genetics. This theme emphasizes the historical, social, and ethical issues that arise when applying a hard science (i.e., human genetics) to social science issues (e.g., race). Topics regarding the latter include eugenics, modern scientific racism, gene editing/CRISPR, De-extinction, Chimp-Human hybrids, genetic selection of male vs. female offspring, human cloning, and genetic privacy.

BIO-ANTHROPOLOGICAL PERSPECTIVES ON HUMAN INEQUALITY

Hello and welcome to Bioanthropological Perspectives on Human Inequality. In any interaction over a finite resource (one slice of pizza) or a singular outcome (one job opening), or more generally in any zero-sum game, some interactants will be winners and some will be losers. Darwin's ideas on natural selection are often metaphorically viewed as capturing this notion in the context of relative fitness, where some individuals have a better propensity to be successful than others. Despite theoretical advances that show how group-level cooperation can be achieved in a system that mostly favors individual fitness over group fitness (e.g., via kinship, reciprocal altruism, and numerous evolved psychological tendencies that foster compassion and cultural norms), the idea that natural selection is a force that "naturally" produces selfishness and inequality, among groups or individuals, is still widely regarded as a legitimate reason as to why inequality occurs among humans.

The use of evolutionary-based arguments to promote what is seen as a "natural order" to some folks, and inequality to others is pervasive in academic and popular literature and widespread across social media. To this end, this class has three major themes: 1) We will look at some of the major "-isms" that plague society: sexism, racism, classism, and also scrutinize the evolutionary and biological arguments that are marshalled by some people to say why inequality among genders, among human groups, and among rich and poor might be expected as a "natural" state of affairs; 2) We will look at the alternative psychological, biological, sociological, anthropological, and medical evidence that informs why these "ism's" unfortunately still exist; and 3) as a smaller theme, we will occasionally scrutinize arguments that involve drawing parallels with the behavior of a given animal species (e.g., "xenophobic chimps" "hierarchical lobsters") or a non-western culture (e.g., sexual division of labor in a given hunter-gatherer society) as a justification to account for current patterns of inequality. In short, we will look at what biological anthropology has to say about human inequality.

Substantively, via foundational lectures, this class will cover several theoretical topics: the biology of sexual differentiation, real and ostensible gender differences in physical, physiological, and cognitive capacity, gender disparities in daily life and life outcomes, the history of eugenics, the genetics of human evolution and human variation, heritability, polygenic risk scores, theoretical perspectives on intelligence and IQ, genetics of behavior and personality, stress and epigenetics, stress and poverty, and various relevant sociological, historical, psychological, and anthropological frameworks that speak to class, race, and gender as a social problem, not a biological one. Topically, via class discussion and informed by the above theoretical topics and outside readings, this class will discuss various issues, points of difference, and debates that arise from taking a bioanthropological perspective on human inequality.

PLEASE NOTE: This class will look at various arguments/ideas from a variety of perspectives. You will likely be exposed to ideas that you don't agree with. An assigned topic/reading is not an endorsement of said topic/reading. Despite your professor having their own personal political views (which I will not make readily apparent in class), I am not interested in making you think like me—I am only interested in making you think. You are completely free to draw your own conclusions about the subject matter and will not be penalized for having an alternative or dissenting view. That said, no matter what your views are, they need to be well-argued and supported with evidence and reason. You can't just naysay for the sake of it. If you encounter a viewpoint you dislike during a discussion, I suggest you use it to further develop or refine/revise your own views on the topic, and not to score "likes," as it were, by crafting a hasty and snarky response. More simply, I ask that everyone chill out, listen, reflect, and be civil. Above all, this class fosters an inclusive and respectful environment; disrespecting your fellow students simply because you disagree with them is not aligned with being a decent human nor the JMU handbook.

Please have a looky at this article:

van Prooijen J-W, Krouwel APM. (2019) Psychological Features of Extreme Political Ideologies. *Curr. Dir. Psych. Sci.* DOI: 10.1177/0963721418817755

CONSERVING WILD PRIMATE POPULATIONS

Hello and welcome to Conserving Wild Primate Populations. Conservation Biology is an oxymoron of sorts; that is, for a discipline where “Biology” is nominally prominent, understanding the biology of a given species is largely tangential to its fate, which is often in the hands of human encroachment. This course focuses on the various approaches to conserving wild primate populations. The course material will draw from various areas including animal behavior, population genetics, ecology, economics, and cultural anthropology. Readings will focus on both the biological approaches to understanding population decline (e.g., inbreeding, population viability analysis) and the various human activities that contribute to extinction and decline (e.g., hunting, deforestation). By the end of the course, you should have a thorough knowledge of the factors that contribute to population decline in wild primates, as well as some of the biological and social approaches implemented to stop (or curb) such declines. The format of the course will be mostly discussions concerning the reading material. However, for some of the material, I will provide some background lectures. The reading list is purposely sparse. I am continually searching for the most provocative, readable, and up-to-date literature that I can assign to you all.

ANTHROPOLOGICAL IMPLICATIONS OF EVOLUTIONARY THEORY

Hello and welcome to Anthropological Implications of Evolutionary Theory. In this course we will look at traditional anthropological topics through an evolutionary lens. Through class discussions, our goal is to examine if and how evolutionary theory can provide any further insight into these topics. Some of the topics we will discuss are “evolution and the meaning of life” “evolution and consciousness” “evolution and religion” “evolution and race” “evolution and feminism” and “evolution and political persuasion” and “evolutionary epistemology.” To be clear, the goal is *not* to a priori propose that evolution provides insight into these topics, rather our goal is to ask 1) *can* evolution provide further insight into these topics that enhances our general understanding of the issues? and 2) is the insight gained from an evolutionary perspective worthwhile and illuminating or does it just create further problems?

PRIMATE EVOLUTIONARY ECOLOGY

Hello and welcome to Primate Evolutionary Ecology. This course consists of an in-depth look at the various theoretical approaches that are used to study wild primates. The rationale for this course is motivated by the fact that when students think of “studying non-human primates” they invariably think of “studying the *behavior* of non-human primates”, and while non-human primate behavior is a cornerstone of primatology, there are also other ways to study primates in the wild. In this regard, this course provides a survey of theory and methods that are employed by biological anthropologists in order to gain insight into the evolution and ecology of wild primate populations. Topics to be covered include feeding ecology, locomotor behavior and anatomy, mating and reproduction, life history theory, demography, primatology and the comparative method, molecular ecology, sensory and cognitive ecology, and conservation biology.

RESEARCH PERSPECTIVES IN BIOLOGICAL ANTHROPOLOGY

Hello and welcome to Research Perspectives in Bioanthro. The course is a research capstone course for individuals who concentrate in biological anthropology and/or have an interest in biological anthropology. The overall goal is to familiarize yourself with the collection, analysis, and presentation of biological anthropological data. A complimentary goal of the course is to provide you with some “real world” skills involving formal public speaking, extemporaneous speaking, writing in an informative but colloquial style, grant writing, statistical analysis, and a basic familiarity with Excel, which is a (horrible and clunky and ubiquitous) data analysis program that will be installed on 99% of all computers owned by your future employers. In short, we use biological anthropology as a means to provide you with practical and scientific skills that will be useful no matter what you do after graduation. Specifically, students will learn the following:

- How to formally speak about biological anthropological data
- How to informally yet didactically speak about biological anthropological topics
- How to write effective grant proposals
- How to write a scientific paper
- How to write a popular scientific summary of an article
- How to do basic statistical analysis using Excel
- Ethics and bias in science and specifically biological anthropological research

EVOLUTIONARY PSYCHOLOGY

Hello and welcome to Evolutionary Psychology. In this class we will examine the biological bases of human behavior, particularly from an evolutionary perspective. Humans, like other organisms, are products of biological evolution. Because of this fact, it is reasonable to examine the evolutionary roots of human behaviors. Many scientists take this approach to explaining human behaviors and we will look at many of their (sometimes controversial, sometimes superficial) ideas concerning this topic. However, our goal in this course is not simply to swallow wholesale the belief that all human behaviors can be explained from an evolutionary perspective, but to critically evaluate the evidence and arguments leading to such claims. One of the major faults of evolutionary psychology is its deemphasis as culture as an evolutionary force, which is something we shall consider when we survey evolutionary psychology studies. The course will focus on the theoretical underpinnings of evolutionary biology and how the relevant aspects of this theory can help us to understand why humans behave the way they do. Topics to be covered include: evolution of language and intelligence, cultural evolution, sex and reproduction, group living, kinship and family dynamics, cooperation, aggression, warfare, and status and prestige. We will look at these topics from a broad evolutionary perspective; in particular, we will draw in examples from non-human primates where necessary.

HUMAN OSTEOLOGY

Hello and welcome to Human Osteology. Bones are remarkable dynamic structures that support your existence. The study of osteology intersects with numerous disciplines such as medicine, paleontology, archaeology, forensics, and anatomy. In this course we will take an in-depth look at the human skeleton. The majority of the course will consist of learning the bones and teeth in the human skeleton as well as various landmarks on each bone and tooth. We will also cover more applied topics such the basics of bone growth, as well as how to determine age, sex, pathology, and ancestry from selected skeletal elements.