COURSES TAUGHT BY RICHARD R. LAWLER

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

INTRODUCTION TO BIOLOGICAL ANTHROPOLOGY

Hello and welcome to Introduction to 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. This course is satisfies a cluster 3 (The Natural World) requirement for the general education program at JMU. 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 to mathematical truth and scientific knowledge and be able to distinguish science from pseudoscience.
- 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 and mathematical information in scientific developments and public-policy issues.

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.

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, the expression of sexual behavior, the physiological sexual response, and the anatomical and ecological factors associated with sexual reproduction differ across nonhuman primate species. Similarly, decades of research on nonhuman primates has shown that sexual behavior is deployed across a variety of contexts that do not pertain to sexual reproduction (similar to humans). This course surveys nonhuman primate sexuality, and specifically 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 make comparisons with human sexuality. Students who complete this course should have a solid grasp on the behavioral, physiological, psychological, and anatomical factors that contribute to primate sexuality.

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) 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. 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.

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.

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, half of the course 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,* etc. The other theme of the course 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 attempt to show that some traits are more "genetically determined" than others (e.g., intelligence). 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 use two textbooks in this course. One book, *Human Evolutionary Genetics* **(HEG)**, will be used to generate the lecture topics. This book is a straight-up, nuts-and bolts approach to the theory and methods of human genetics; it is very informative, but not very provocative. The other book, *Human Biodiversity* **(HB)**, will be used to generate discussion. This book mostly looks at the social context of human genetics. It emphasizes the historical, social, and ethical issues that arise when applying a hard science (i.e., human genetics) to social science problems (e.g., race). At times it is preachy, at times it is brilliant, but it is always provocative. I will also hand out additional readings as I see fit.

CONSERVING WILD PRIMATE POPULATIONS

Hello and welcome to Conserving Wild Primate Populations. 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 (and readable) literature that I can find to hand out 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?

HUMAN OSTEOLOGY

Hello and welcome to Human Osteology. Bones and teeth are among the hardest biological substances produced by living organisms. At once, bones and teeth fulfill structural and functional roles thus uniting form and function. Our appreciation of biological diversity would be vastly diminished without the recovery of fossilized bones and teeth. Bones and teeth are important objects of study in biological anthropology and all aspiring biological anthropologists should be familiar with basic bone/tooth 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.