**Anthropology 160:001: The Human Life Course: An Introduction to Human Evolutionary Ecology**
**Time and location:** Tuesday and Thursday, 11:00 am – 12:15 pm, Hibben 105

**Instructors**: Bret Beheim, Ph.D., and Hillard Kaplan, Ph.D.
**Office**: Bandelier West, Room 205
**Office Hours**: Tuesday and Thursday, 9:45 am – 10:45 am (or by appointment)
**E-mail**: beheim@gmail.com

**Teaching Assistant**: Ed Seabright
**Office**: Bandelier West, Room 206
**Office Hours**: Monday 11:00am-12:00pm, Wednesday 9:00-10:00am
**E-mail**: eseabright@unm.edu

**Related Offering:** Anthropology 161L (2 sections): Human Evolutionary Ecology Laboratory

**Required Text:** Low, Bobbi S. (2000) Why Sex Matters: A Darwinian Look at Human Behavior. Princeton, NJ: Princeton Univ. Press.
This book is available at the UNM Bookstore; the Zimmerman Library also has a copy of the book.

Additional required readings will be uploaded to UNM Learn.

**Course Description:**

This course is an introduction to the ideas in the burgeoning field of human evolutionary ecology (also called human sociobiology, biocultural anthropology, and human behavioral ecology). The idea that our evolutionary history has shaped the way we currently make life choices is one of the most important and exciting developments in the social sciences today. We will explore the evolution of the human life course, and examine contemporary and historical variation in behavior during childhood, adolescence, adulthood, and old age. Some questions that we will explore include: Why do people have such big brains? Is biology really destiny? How and why do men and women decide what their "ideal" mate should look and act like? What do men and women want? Why has the age of first menstruation been dropping by 3-4 months per decade for the last 150 years? Why do poorer people have more children than wealthier people? Why do humans live so long compared to many other animals, and is this really a modern phenomenon? What does it mean to say that a hunter-gatherer had a life expectancy of 40 years?

**Student Learning Objectives:**

1. Describe the process of scientific inquiry, understand the scientific method, value science as a way to obtain valid and reliable information about the world, and understand why it is important to apply the scientific method to the study of human diversity.
2. Solve problems scientifically and develop critical thinking skills; students should be able to place their own daily observations of behavior within a broader theoretical context.
3. Digest scientific information; students should be able to understand what is being communicated in figures and tables, and why such tools are important in science.
4. Apply scientific thinking to real world problems; students should understand how science adds to our knowledge of global issues.

**Course Requirements:**

There will three exams, worth 25%, 30% and 35% of your grade. Each consists of multiple choice, short answer, and essay questions. All exams will cover readings and lectures but will focus mostly on lectures. They are not cumulative, but your understanding of the material should increase with each exam. Short answers might ask you to define and give the significance of an important concept. Essay questions might ask you to link theoretical concepts and relevant empirical data. The readings and lectures *complement* one another, *they do not duplicate one another*. Therefore, you must attend lectures to pass this class. Additionally, 10% of your grade will be earned through lecture participation using i>clickers, available at the UNM bookstore

**Attendance at exams is mandatory.** If you anticipate that you will miss the scheduled time for a particular exam, you must discuss your options with the primary instructor (Beheim) **before** that exam is held.

**Accessibility Services**

We are happy to help students meet their academic goals. If you require assistance, please let us know what arrangements you need to fulfill course requirements.

**Tentative schedule**

**Week 1, Jan 13, 15**

1. What is Human Evolutionary Ecology?
2. Basic Principles of Natural Selection

Readings:

Trivers: Chapter 1, A Scientific Theory of Organic Creation, pp. 1-18 (UNM Learn)
Trivers: Chapter 2, Natural Selection, pp. 19-41 (UNM Learn)

**Week 2, Jan 20, 22**

3. Natural Selection, Heritability, Behavior, and Learning
4. Group Selection, Kin Selection, and Altruism

Readings:

Trivers: Chapter 5, Genetics, Behavior and Learning, pp. 87-108 (UNM Learn)
Low: Chapter 1, Introduction, pp. 3-18
Trivers: Chapter 3, Elementary Social Theory, pp. 41-66 (UNM Learn)
Trivers: Chapter 4, The Group Selection Fallacy, pp. 67-86 (UNM Learn)

**Week 3, Jan 27, 29**

5. Video: Human Planet, "Oceans"
6. Reciprocal Altruism

Readings:

Low, Chapter 2, Racing the Red Queen: Selfish genes and their strategies, pp. 19-34
Low, Chapter 9, Nice Guys Can Win—In Social Species, Anyway, pp. 146-162

**Week 4, Feb 3, 5**

7. Life History Theory and the Evolution of the Human Life Course
8. Evolution of the Human Life Course (continued)

Readings:

Kaplan et al. (2000) A Theory of Human Life History Evolution: Diet, Intelligence and Longevity (UNM Learn)

**Week 5, Feb 10, 12**

9. Video: Human Planet, "Deserts"
10. Review for Exam 1

Readings:

None - study for exam; attend review session with questions

**Week 6, Feb 17, 19**

11. **Exam 1**
12. Parental Investment and Sexual Selection

Readings:

Trivers: Chapter 9, Parental Investment and Sexual Selection, pp. 203-238 (UNM Learn)
Low, Chapter 3, The Ecology of Sex Differences, pp. 35-56

**Week 7, Feb 24, 26**

13. Return and discuss exam 1, catch up if behind on lectures
14. Life Histories, Rank and Reproductive Success in Monkeys and Apes

Readings:

Low, Chapter 4, Sex, Status and Reproduction among the Apes, pp. 57-76
Low, Chapter 5, Sex, Appearance and Mate Choice

**Week 8, Mar 3, 5**
15. Male-Male Competition and Mate Choice in Traditional Small-Scale Societies, video: African male displays
16. Female and Male Maturation
Readings:
Low, Chapter 6, Sex, Resources and Human Lifetimes

**Week 9 – Spring Break!**

**Week 10, Mar 17, 19**
19. Review for Exam 2
20. **Exam 2**
Readings:
Low, Chapter 13, Sex, Resources and Early Warfare, pp. 213-229
Study for exam – attend review session with questions

**Week 11, Mar 24, 26**
21. Resource Competition, Inheritance and Sex Differences in Traditional Stratified Social Systems I
22. Discuss exams, Traditional Stratified Social Systems II
Readings:
Low, Chapter 8, Sex, Resources and Fertility in Transition, pp. 127-145
Boone (1986) Parental Investment and Elite Family Structure in Preindustrial States: A case study of late medieval-early modern Portuguese genealogies (UNM Learn)

**Week 12, Mar 31, Apr 2**
23. Demographic Transition I
24. Demographic Transition II
Readings:
Kaplan et al (2002) An Evolutionary Approach to Below Replacement Fertility (UNM Learn)

**Week 13, Apr 7, 9**
25. Teen Pregnancy
26. Film: Human Planet
Readings:
Low, Chapter 12, Politics and Reproductive Competition, pp. 198-212

**Week 14, Apr 14 , 16**
27. Parental investment in modern society
28. Modern marriage markets and mate pools
Readings:
Low, Chapter 15, Wealth, Fertility and the Environment in Future Tense

**Week 15, Apr 21, 23**
29. Cultural evolution
30. Historical dynamics
Readings:
Kirch, "Hawaii as a model system for human ecodynamics"

**Week 16, Apr 28, 30**
29. Review for Exam 3
30. **Exam 3**
Readings:
None - study for exam