Anthropology 242 - Summer Session A  
Human Evolutionary Biology and Life History

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NOTE: Office hours are flexible and by appointment. Please contact me via email or in class.

Course description
This course is designed to examine (and celebrate!) human biological diversity from the perspective of evolutionary and life history theory. Variation in growth, immune function, maturation, reproductive function, and senescence are reviewed in reference to their potential adaptive significance. We will focus particular attention on non-western populations and their responses to environmental constraints such as energy expenditure and caloric intake. There is no prerequisite for this course.

Class meetings: Mon-Wed, 1:00 – 4:15 PM

Discussion questions
Once a week, I will post a question about the readings or some other material. These questions are designed to make you think about the topics we are discussing in class and you should be able to answer them in one or two short paragraphs. They are due on the day before our meetings at 11:59 pm, i.e. they are due on Mondays and Wednesdays before midnight (no exceptions).

Grading
Midterm exam (30%), to be given during the first half of the meeting on Tuesday June 11th  
Discussion Questions (25%), scheduled twice a week  
Participation in class (5%)  
Final exam (40%), cumulative, to be given on Thursday June 27th

Grading is NOT on the curve and will be based on the following cut-offs:

100% = A  
93 - 100% = A  
90 - 92% = A-  
87 – 89% = B+  
83 – 86% = B  
80 – 82% = B-  
77 – 79% = C+  
73 – 76% = C  
70 – 72% = C-  
67 – 69% = D+  
63 – 66% = D  
60 – 62% = D-  
<60% = F
Please note the following:

- The midterm exam and the final will be a combination of identification concepts, short answers and one longish essay question.
- Regrade requests for the midterm should be done in writing and within two days of receiving your midterm back.
- The final exam is cumulative and there will be no opportunity for regrade.
- Makeup examinations will only be given with a documented Dean’s excuse.
- There are no extra-credit opportunities.
- Students with disabilities, please contact us. We will make all efforts to accommodate your needs.

Required readings
There is no required textbook for the class. We will post selected chapters and scientific articles on the Canvas site.

Suggested readings:

ACADEMIC INTEGRITY
Please read the 2019 Summer Student Handbook for guidelines and regulations regarding academic honesty and plagiarism.
CONTENTS (The approximate schedule with dates will be available on the Canvas site, but bear in mind that we have a flexible teaching/learning style that prioritizes in-class discussions, so we may, at points, be out of track with the schedule).

1. Introduction to the course
   a. Teaching and learning philosophy – active learning
   b. Who we are and what we do
   c. Brief overview of the course

2. The ethics of human biology research
   a. Principles of ethics
   b. Discussion of case studies

3. Biological bases of life
   a. The building blocks: cell structure and function
   b. The organization of genetic material
   c. Principles of inheritance

4. Epigenetics
   a. Basic principles
   b. Application to human evolutionary biology

5. Evolutionary Theory
   a. How we explain variation
   b. Theory of evolution by natural selection
   c. Relevance of evolutionary perspective for our life

6. Human diversity
   a. Basic principles
   b. Theories of modern human origins
   c. Phenotypic and genotypic variation
   d. Biological vs socially constructed concept of race

7. Nutrition and Energetics
   a. Human evolution and dietary changes
   b. Energy expenditure

8. Stress
   a. What do we mean by “stress”? 
   b. Coping with stress

9. Biological rhythms
   a. Sleep/activity cycles
   b. Physiological rhythms

10. Life History Theory
    a. Understanding life histories
    b. Primate life histories
    c. Human life history

11. Human growth and development
    a. Human growth patterns
    b. Puberty and adolescence

12. Human Reproductive Ecology
    a. Conceptual framework
    b. Male and Female Reproductive Ecology

13. Evolution & Medicine
    a. Basic concepts
    b. Adaptations to infectious diseases