**Fall 2018**

**Syllabus**

**Biological Anthropology (ANTH 510)**

**Teacher: Aida Abdykanova**

**Course Schedule: Friday 17.00, 18.25**

**Course Description**

This course surveys topics in the discipline of Biological Anthropology or Physical Anthropology, the scientific study of human biology and behavior “Physical anthropology is a biological science that deals with the adaptations, variability, and evolution of human beings and their living and fossil relatives. Because it studies human biology in the context of human culture and behavior, physical anthropology is also a social science”. This course will introduce students to contemporary issues in human bio-cultural evolution and to the major questions facing practicing biological anthropologists today.

**Course Objectives**

1. Develop knowledge of the fundamental concepts and principles of physical/biological anthropology.

2. Develop knowledge of basic genetic concepts and processes including molecular, and population genetics.

3. Develop knowledge of evolutionary biology including the Mechanism of evolutionary change.

4. Outline and describe human physical diversity and ethical discussion of the race concept.

5. Outline and describe the major fossil evidence for primate evolution including hominid evolution.

6. Outline and describe the major concepts of primatology including comparative primate anatomy and behavior studies.

As a result of successful completion of the course students will be able

- to gain an understanding of humans as part of the natural world and members of the Order Primates

- to know human unique evolutionary history;

- to know human bio-cultural adaptations to a variety of environments;

- to critically analyze the biological concept of race as applied to humans.

**Course content**

Introduction: An overview of the course and discussion of the field of biological anthropology

Evolutionary Theory

*History of Evolutionary Thought: A discussion of the development of evolutionary theory in Western science.*

*Darwinian Evolution and Natural Selection: An analysis of Darwin’s theory, factors influencing its development, and Darwin’s dilemma.*

*The Mechanisms of Evolution: A further discussion of Darwin’s dilemma, the synthesis of Darwin and Mendel’s theories, and molecular genetics.*

Human Genetics and Anthropology

*Basic Definitions: An overview of basic concepts/terms in anthropological genetics.*

*Transcription & Translation – How does DNA replicate? How are proteins synthesized?*

Primatology

*Characteristics of the Primates: Definition & evolution of the Order Primates.*

*Survey of the Primates: A look at members of the Order Primates, including the Linnean classification for the Order.*

*Primate Locomotion: Survey of morphology and locomotor patterns.*

*Bipedal Locomotion: Focus on the form of locomotion utilized by modern Homo sapiens sapiens, including a survey of the morphology, biomechanics, & stresses of bipedality.*

*Diet and Dentition: Survey of tooth morphology and the role of the dentition in adaptation.*

Primate Behavior

*Basics of Behavior Studies – models and techniques used in primate behavior studies will be reviewed.*

*Chimpanzee Behavior: Analysis of common and pygmy chimp social structure. Particular attention will be given to how these behaviors are used to in models of hominid evolution.*

Human Paleoanthropology

*Plio-Pleistocene Hominids: Discussion of significant Ardipithecus and Australopithecine finds.*

*Genus Homo: A survey of Homo habilis and Homo erectus/ergaster morphology and cultural remains of the first member of our genus.*

*Upper Paleolithic Hominids: Survey of the morphology and “culture” of Neandertals and archaic Homo sapiens.*

Human Biology/Ecology/Behavior

*Adaptation: exploration of the mechanisms that shape modern human variation such as diet, disease, and the environment.*

*How Humans Vary: a discussion of modern human variation – survey of race, sex/gender, and intelligence.*

*Human Behavioral Biology*

Human Body, Food and Health

**Course Readings**

All required readings and other course materials can be found on e-course.

**Course Requirements**

In-class activities (20% plus attendance 10%) Attendance is mandatory. Each student is expected to come to class prepared and to contribute to class all discussions and activities. You can expect to lose some participation points if you miss more than one class for any reason. Please also be ready for weekly home and class assignments on the base of lecture materials and readings.

Quizzes. There will be two quizzes, at the start and end of the semester and only second will be graded. The first will cover the level of your knowledge in the field of biological anthropology in order to reveal gaps and better organizing of the course material.

The second quiz (10%) will be on the last day of class and will address the course objectives.

Review (20%) should be written for one book or monograph by students’ choice.

Discussion on given book/readings (20%). Every week, 1 student will take responsibility for 1 topic. The student will be expected to lead discussion on that question as well as to participate intensively in the other topics of the course.

Final Exam (20%)

**Grading Scale:**

А 96-100%

А- 88-95%

В+ 84-87%

В 77-83%

В- 74-76%

С+ 70-73%

С 64-69%

С- 61-63%

D+ 56-60%

D 51-55%

D- 46-50%

F <45%