Anthropology 1145: Human Variation – Bio-Anthropology and Forensic Analysis

IDENTIFYING INFORMATION:

Anthropology 1145: Human Variation: Bio-Anthropology and Forensic Analysis
3 semester credits
Prerequisites: None
Recommended: Eligible for ENGC 1101, eligible for READ 1106
MnTC Goals: 5 (social sciences) and 7 (Human Diversity)

CATALOG DESCRIPTION:

Human Variation – Bio-anthropology and Forensic Analysis (3 Cr.). This course examines the physical diversity of human populations – the young and old, male and female, large and small, and people of broadly varying ethnic origins. Scientific study of differences among human populations in skeletal anatomy, dentition, hair, certain soft tissue and DNA can be useful in understanding and debunking historical prejudices, understanding how natural selection operates, and to identify victims from their remains. Students will examine actual human bones and gain understanding of how physical evidence can be applied to subjects ranging from archaeology to judicial proceedings. Fall, Spring  MnTC Goals: 2, 5 & 7

REVIEW DATE: August, 2018

OUTLINE OF MAJOR CONTENT AREAS:

1. The nature, scope, and history of bio-anthropology and forensic anthropology
2. Application of the scientific methods and statistical analysis to studying human variance
3. Human osteology and odontology
4. Recovery and analysis of human remains, fossil and contemporary
5. Principles of osteology and odontology
6. Determination of sex and understanding human sexual dimorphism
7. Determination of ancestry and understanding the origin of ethnic differences. Why the social construct of “race” has no real value in studying human variation.
8. Determination of age and understanding human growth and age-based deterioration
9. Determination of stature and body morphology
10. Study of human hair and the link to ethnic variance
11. Trauma and disease as seen through skeletal damage
12. Methods of personal identification
13. DNA and applications of genetic analysis
14. Forensic reconstruction techniques
15. Ethical and legal issues in the study of human remains.

LEARNING OUTCOMES:

Students completing this course will be able to:
1. Assess and apply the nature and statistical degree of variance displayed within and between human groups (7a,b,c and 5a)
2. Explain the biological origins of human variance. (7c)
Identify the various techniques used in determining sex, age, ancestry, and stature from human remains. (7a,b,c and 5a,c)
4. Identify the techniques used in determining trauma and/or pathological conditions of the human skeleton. (7a,b,c)

5. Explain how general and specific identification of victims can be made from skeletal evidence. (7a,b,c;)

6. Know and comply with the ethical and legal obligations of those involved in the study of human remains, both in contemporary criminal investigations and in an archaeological setting. (5a,b)

**ASSESSMENT:**

Student learning can be assessed as individual instructors best see fit using a combination of the following or other appropriate instruments:
1. Objective and/or essay examinations.
2. Classroom participation
3. Group projects
4. Papers of varying length and scope

Other graded assignments or projects will be given as deemed appropriate by the instructor. Individual instructors may devise their own specific methods and weighting systems.