

ANTH 452-A01

Advanced Topics: Introduction to Forensic Human Osteology

INSTRUCTOR: Dr. Ranald Donaldson

Course Description and Objectives

Introduction to Human Forensic Biology is a biological anthropology course.

This applied osteology course builds strongly upon the osteology foundation material presented in Anthropology 352, Introduction to Modern Human Osteology, which is a **mandatory** prerequisite for this course.

Anthropology 452 is not a general forensic anthropology survey course, but rather is a specific applied osteology course. The basic biomechanics of bone injury will be presented, both theoretically and practically. A variety of topics will then be reviewed, primarily traumatic injury to bone by various mechanisms (ballistic, blade, blunt, and burn). Taphonomy and skeletal aspects of child abuse will also be reviewed. Human and non-human bone, whole and fragmentary, will be studied. The primary objective of this course is to teach students how to recognize human bone that has been altered either by trauma or by post-mortem taphonomic processes.

In order to master the fundamentals of this course, laboratory study of the relevant osteologic specimens is absolutely necessary, as was required with the preceding Anthropology 352 course.

Skills Development

Students will be afforded the opportunity to avail themselves of a large collection of forensic osteology specimens, in order to familiarize themselves with the most commonly seen types of bone trauma and the biomechanical principles underlying the production of various trauma patterns. You will have access to the most extensive set of forensic osteology specimens in Canada. Active participation in class discussions is expected of all students.

At the conclusion of this course, a student will:

1. Understand basic forensic osteologic trauma typing.

2. Understand basic biomechanics of bone injury.
3. Understand taphonomic influences on bone.
4. Be able to apply the above information to actual bone specimens, both archaeological and modern.
5. Be able to read the relevant literature, critically analyze it, and apply it.
6. Be able to formulate new research questions.
7. Understand the ethics of specimen collection and retention.