

University of Western Ontario
Department of Anthropology

Anthropology 2236b

Human Aging: Bioanthropological Perspectives

Instructor : Dr. El Molto

Office: Social Science Centre 3433

Office Hours: Wednesdays 11:00-1:00.

Teaching Assistants: Mr. Ken Andrews – SSC 3430 – office hours TBA

Ms. Casey Kirkpatrick SSC 3325 (anthro library) - office hours TBA

Location: SSC 2257

Time: Tuesdays 1:30-4:30

Prerequisite: See calendar page 191; permission of the instructor

Required Reading: Part A *Growth After Birth* D. Sinclair and Dangerfield (S & D)

2005, Oxford University Press

Part B Articles on reserve in library

Grading: Two, 2 hour objective exams, best counts 55%.

1st test is on Feb 21st (it also includes short essay questions).

2nd test in exam timetable.

Other: Power Point presentations are available on WEB-CT on Mondays. This will allow students to concentrate on the material being given rather than focusing on note taking. Additional material will be presented in lectures.

Students are allowed to use calculators on the exams.

There are no written assignments in the course so plagiarism checking is not an issue. However, students are warned of the severity of the penalty (a 0 mark on the exam) if they are caught cheating on exams. Also, the scantron software will be used to mark the objective parts of the exams and it will be used to check for any unusual answer patterns that may indicate cheating. Students are responsible for reading the regulations in the calendar.

Course Description

This course examines the biological changes of the human body throughout the growth process from birth to old age. It uses a systems approach for the documentation and evaluation of the normal and variant patterns of biological growth development and aging in human populations. It emphasizes the methods used in assessing clinical growth and development with special emphasis on those methods used in bioarchaeology to estimate chronological age from calcified tissue. The problems associated with older aging and the hypotheses on why we age are discussed in detailed.

Lecture/Topic Schedule

(A detailed description of each lecture is provided on the webCT each week!)

Part A – Biology and the Analysis of Human Growth, Development and Aging

Jan. 10 General background to the study of human growth, development and aging
Readings: Chapters 1 and 2

Jan. 17. The nature of cellular and tissue growth, development and aging
Readings: Chapters 1 and 3)

Jan. 24 Growth and development of biological systems
Readings: Chapters 4 and 5

Jan. 31 Analysis of the factors influencing, growth, maturation and aging
Readings : Chapter 7

Feb. 7 Growth, development and adaptation: the meeting point between the organism and the environment
Readings: Chapters 8 and 9

Feb. 14 Aging from Head to foot: The science of biogerontology
Readings: Chapter 10

Feb 21 Reading week

Feb. 28 Test #1

Part B – Special topics on the biology of human aging (articles on reserve in the library)

Mar. 6 Human lifespan, life expectancy and demography in evolutionary perspective

Mar. 13 The genetics of human aging – what do the progerias tell us?

Mar. 20 Overview of epidemiology of diseases of human aging and the new paradigm shift on prenatal origins of DOA

Mar. 27 Diseases of aging with special emphasis on osteoporosis and Alzheimer's disease

Apr. 3 Life compression strategies (e.g. nutrition and exercise) for turning back the clock

Apr. 10 Hypotheses on why we age and overview of part B