Course description

The University of Manitoba Undergraduate Calendar describes this course as follows:

An introduction to physical anthropology and archaeology. Topics include: biological evolution, evolution and comparative behaviour of primates, fossil evidence for human evolution, and the emergence of human culture. Students may not hold credit for ANTH 1210 and any of: ANTH 1211 or the former 076.120.

This course will provide you with a basic introduction to physical anthropology and archaeology, two of the major subdisciplines that make up the anthropological study of the human experience. We will broadly survey the central methods, concepts, theories, and empirical findings of each body of knowledge. Over the next few months you will be concerned with defining and understanding human nature and how our unique physical form, technological capacities, and cultural traditions evolved over the course of millions of years. In addition, we will be investigating the patterns and causes of human biological and cultural variation that are becoming of increasing political concern in an ever shrinking and interdependent world.

Anthropology literally means the study or science of the human race and, accordingly, falls within the social sciences. Its special place among these disciplines rests in its claim to be the broadest, treating all aspects of human behaviour in every part of the world from our origins to the present day. Thus our interests include and cut across those of biology, psychology, political science, sociology, economics, and many of the humanities as well. The general breadth of subject matter encourages quite a diversity of research activities, but all anthropologists are united by a unique common framework. We understand human behaviour, institutions, and beliefs from the perspective of the culture concept. (Culture is understood as the learned body of knowledge, belief, and custom that people use to organize their natural and social environments.)

Within the diversity of anthropological subject matter, the field is divided into four subdisciplines: physical anthropology, archaeology, linguistics, and cultural anthropology. Physical anthropology, also known as biological anthropology, involves the study of human physical characteristics and how they relate to the origins, evolution, and variations of human culture and behaviour. The main concentrations of investigation and analysis within this subdiscipline include, genetics, populations genetics, human evolution, and comparative primatology. Archaeology focuses on unearthing and reconstructing cultures of the past and speculating about how and why they have changed over time. Anthropological archaeology, unlike its classical counterpart, is mainly concerned with the prehistoric period and the accounts of ancient traditions that can be extracted from artifacts in the absence of explicit written records.

Figure I.1 Sub disciplines and Specialization within Anthropology
Course objectives

The presentations, readings, and assignments for this course are designed to give you a broad overview of the subdisciplines of physical anthropology and archaeology and their component fields of special study. You will specifically be provided the resources and skills to:

- understand the biochemical genetic basis of human anatomy and physiology and the relationship between gene chemistry, environment and the development of physical traits;
- analyze the method in which genetic traits are transmitted from parents to children;
- distinguish the scientific concept of population from the folk concept of race;
- describe human physical variation in terms of the population concept;
- explain the theory of evolution through natural selection and apply it to specific examples of primate and hominid phylogenetic divergence;
- critically discuss the patterns of human origins in terms of competing theories;
- identify and explain the role of culture in human physical evolution and variation;
- describe the techniques archaeologists use to uncover and reconstruct past cultures;
- trace the course of technological and cultural development through major chronological periods and phases; and
- pursue more advanced and specialized courses in physical anthropology and archaeology.

Course materials

Required text


Note: If you haven't already ordered or received your textbook please call the University of Manitoba Bookstore (474-8321) or Manitoba Toll-Free 1-800-432-1960 (ext. 8321) and identify yourself as a Distance Education Student. Textbooks can be mailed to you C.O.D. or on Visa or Mastercard.

Course outline

1. Introduction to Physical Anthropology: the Relation of Culture to Human Biology and Evolution
   1. The culture concept
      a. A brief history of the culture concept
      b. A definition of "culture"
         i. Symbolic composition
2. Societal grounding
iii. Learned transmission.

2. Culture and human evolution: The biocultural approach
   a. Culture and perception of reality
   b. Culture and environmental adaptation

Lewis et al. Chs. 1 & 2

2. Genes and Inheritance:
   1. Chromosomes, genes, and DNA
      a. Genes and chromosomes as physical structures
      b. Gene chemistry: DNA
      c. Genetic processes: protein synthesis
         i. The nature of proteins
         ii. Protein synthesis
      d. Genetic processes: DNA replication
   2. Reproduction
      a. Asexual reproduction: Mitosis
      b. Sexual reproduction: Meiosis
   3. Rules of inheritance
      a. Segregation: The particulate nature of genes
      b. Independent assortment

Lewis et al. Chs. 2 & 3

3. Population Genetics:
   1. The population concept
   2. Genetic traits in populations
   3. Collective phenotype
   4. Collective genotype (gene pool)
   5. Hardy-Weinberg Equilibrium
   6. Evolution
      a. Mutation
      b. Natural selection
      c. Genetic drift
      d. Founder effect
      e. Gene flow

Lewis et al. Ch. 3

4. Human Variation:
   1. Racial classifications
   2. Patterns of human diversity
      a. Natural selection
      b. Cultural selection

Lewis et al. Ch. 4

5. General Principles of Evolution and Speciation:
   1. General principles of Darwinian evolution
   2. Species and ecosystems
   3. Patterns and processes of speciation
      a. Cladogenesis/divergent speciation
      b. Adaptive radiation
      c. Anagenesis
      d. Convergent evolution
      e. Extinction and replacement
4. Gradualism and punctuated equilibrium

Lewis et al. Ch. 5

6. Primate Variations:

1. The Primate order
2. Primate taxonomy
3. Prosimians
4. Anthropoids
5. Platyrrhines
6. Catarrhines
7. Cercopithecoids
8. Hominoids
9. Hylobatidae
10. Pongids
   - Orangutans
   - Gorillas
   - Chimpanzees
   - Bonobos
11. Hominidae
12. Primate behaviour and social organization
    a. The bases of primate sociability
    b. Variations in group formation
    c. Primate behaviour and the origins of human society
       - Templates for human society: love or war
       - Distinctive features of human society and culture

Lewis et al. Chs. 6 & 7

7. Human Origins:

1. Documentary human origins
2. Primate evolution

Lewis et al. Chs. 8-11

8. Hominid evolution

1. Middle Pleistocene hominids
2. Late Pleistocene hominds (homo sapiens)

Lewis et al. Chs. 10 & 11
January 8, 2014

9. Paleolithic and Mesolithic Cultures

1. The Archaeological perspective
2. Archaeological periods
3. The Paleolithic
4. The Mesolithic

Lewis et al. Ch. 12

10. The Settlement of the Americas:

1. Who were the first Americans?
2. The PaleolIndia Period
3. The Archaic Period

Lewis et al. Ch. 13
Testing and evaluation

There are 16 assignments in this course: 12 Multiple Choice tests found at the end of each unit and 4 short essays. The grading percentages are listed below.

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>12 Multiple choice tests</td>
<td>24%</td>
</tr>
<tr>
<td>4 short essay assignments - Worth 12% each</td>
<td>48%</td>
</tr>
<tr>
<td>Final exam</td>
<td>28%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
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**Multiple choice tests (MCT)**

An on-line multiple choice test has been prepared for each unit. These tests have been designed to assist you in evaluating your own progress as you work through the course materials. While you may take the test as often as you wish the grade will be calculated the first time you take the test.

**Essay assignments**

You have four written assignments. Make sure that you fully and effectively answer the questions posed giving due attention to organization and clarity of content, grammar, spelling, and source referencing. Be aware that plagiarism (verbatim copying or close paraphrasing from your sources without acknowledging the sources) will be penalized with a grade of F for the assignment and, in serious cases, with an F for the entire course. The essay assignments will appear at the end of 4 of the multiple choice tests.

**Final exam**

The final exam will be conducted at the University of Manitoba, Fort Garry campus or at an alternate location off-campus. All students must declare an exam location. The Registrar's Office is responsible for scheduling the final exam. Once finalized, the exam date and time information will be posted on the University of Manitoba Exam site.

The final exam will involve 60 multiple choice questions and 8 short identifications. You should do the multiple choice tests at the end of each unit and go over the chapter and unit summaries and glossary items to prepare for this task.

**Grading scale**

The following grade ranges will apply:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Range</th>
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<tbody>
<tr>
<td>A+</td>
<td>90-100</td>
</tr>
<tr>
<td>A</td>
<td>80-89</td>
</tr>
<tr>
<td>B+</td>
<td>75-79</td>
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</table>
Please note: All final grades are subject to departmental review.

**Plagiarism**

You should acquaint yourself with the University's policy on plagiarism, cheating, and examination impersonation as detailed in the General Academic Regulations and Policy section of the University of Manitoba Undergraduate Calendar. **Note:** These policies are also located in your Distance and Online Education Student Handbook or you may refer to Student Affairs at http://www.umanitoba.ca/student.

**Distance and Online Education (DE) Student Resources**

In your course website there are links for the following:

- Contact Distance and Online Education Staff
- Distance and Online Education Student Handbook
- Distance and Online Education Website

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