

San José State University
Department of Anthropology
Anth 12, Introduction to Human Evolution,
Section 1, Fall 2009

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Office Hours: M 12-12:30, W 9:45-10:15
Class Days/Time: Section 1: MW 10:30-11:45 am
Classroom: Section 1: Washington Square Hall, Room 004
GE/SJSU Studies Category: B2, Life Sciences

Faculty Web Page and MYSJSU

Information for the course can be found at the courses website at:
<http://www.sjsu.edu/people/tracey.orourke> . Here you will find the syllabus, assignments, and lecture material. Also make sure that your email address registered with MYSJSU is accurate as I use those addresses to send out assignments and other notifications.

Course Description

The human organism from an evolutionary perspective. The foundations of life and evolutionary theory. Introduction to primate behavior and the fossil record. Human bio-cultural evolution over the last sixty million years.

Detailed Course description:

Biological, or physical, anthropology studies biological and physical aspects of humans in order to understand how and why we vary and how we got this way. It covers all biological aspects of what makes us human. This course is an introduction to this field of study. We focus therefore, on basics of biology, in order to understand how we vary; evolutionary theory, to understand how we got to be this way; modern primates and their behavior, because inherent to understanding us in understanding our nearest relatives, the primates; and we examine the fossil evidence for human and primate evolution, in order to see how we got here.

Anth 012 is a Science GE offering (core GE, B2/Life Science).

The course is an introductory one; thus, no specific prior knowledge is assumed. **There are no prerequisites to take this course.**

During the semester, students will acquire basic biological knowledge relating to molecular biology, cell reproduction, fundamental principles of micro- and macro-evolutionary theory (especially the role of natural selection), and the intellectual background leading to the development of evolutionary theory.

This foundation will then be used to explore the specific evolutionary history of major groups of organisms with a specific focus on human evolutionary history. Comparative perspectives will be incorporated so to provide a basis for understanding how humans are related to other primates (and what this implies structurally, physiologically, and behaviorally). Furthermore, data provided directly by the fossil and molecular records will be comprehensively reviewed in tracing the major features of human evolution. In summary, this course attempts to place our species in a clear evolutionary context and to ask basic questions relating to human origins, such as what kind of creature are we, how did we get to be this way, and where did we come from.

Major topics will include:

- The history of evolutionary theory
- Biological basis of life: cells, DNA, and genes
- Evolution and heredity
- Overview of primates
- Hominid/human origins
- Modern human origins
- Human variation and adaptation

Course Goals and Student Learning Objectives

Anthropology 12 fulfills the requirements of B2, Life Sciences GE courses

GE/SJSU Studies Learning Outcomes (LO),

Upon successful completion of this course, students will be able to:

LO1: Students should be able to use the methods of science and knowledge derived from current scientific inquiry in life or physical science to question existing explanations.

LO2: Students should be able to demonstrate ways in which science influences and is influenced by complex societies, including political and moral issues.

LO3: Students should be able to use the methods of science, in which quantitative, analytical reasoning techniques are used.

More specifically, life science courses, such as Anth 012, focus on:

- Structure and functions of living organisms;
- Levels of organization of living systems;
- Strategies of survival and reproduction;
- Patterns of evolution;
- Principles of genetics, including the basis for variation; and

- Interaction of organisms and their natural environment.

Course Content Learning Outcomes

In addition to the above overall objectives of all life science GE courses, Anth 012 also has several more specific learning objectives. By the completion of this course, students should be able to:

- Think critically;
- Recognize a testable hypothesis;
- Differentiate between a hypothesis and a general theory;
- Recognize how evolutionary theory is part of a wider scientific approach;
- Recognize biases;
- Know the historical development of Western scientific tradition;
- Distinguish and understand the primary factors influencing evolutionary change;
- Discern how basic life processes play a part in the variation necessary for evolution;
- Understand the relationships between humans and other organisms; and
- Understand the biology and culture of human diversity.

Departmental Learning Objectives and Skills:

The department of anthropology also has key learning objectives and skills that we wish students to obtain. By the completion of this course, students should have an increased:

- 1) Understanding culture as the distinguishing phenomenon of human life, and the relationships of human biology and cultural processes in human behavior and evolution.
- 2) Awareness of human diversity and the ways in which humans categorize diversity.
- 3) Knowledge of the significant findings of archaeology, cultural anthropology, and physical anthropology, and familiarity of the important issues in each sub-discipline.
- 4) Knowledge of the history of anthropological thought and its place in modern intellectual history.
- 5) Comprehension of migration, colonialism, and economic integration as significant phenomena shaping global society.
- 6) Ability to access various forms of anthropological data and literature.
- 7) Awareness of the importance and value of anthropological knowledge in contemporary society, and the ability to apply it to social issues.
- 8) Knowledge of the research methods of the sub-disciplines of anthropology, and ability to apply appropriate research methods in at least one sub-discipline.
- 9) Ability to present and communicate anthropological knowledge and the results of anthropological research to different audiences.
- 10) Knowledge of political and ethical implications of social research.

Attaining the Course Objectives/Goals

At a general level, this course is primarily about the nature of the evolutionary process, how it works, and how scientists have come to understand the process (specifically to understand ourselves). The evidence relating to human evolution is used to illustrate evolutionary and biological processes (such as natural selection, reproduction, heredity, etc). In addressing the fundamental questions relating to human origins, you will be challenged to think critically, apply sound scientific methodologies, understand and assess quantitative data, and communicate your knowledge.

At SJSU, students are encouraged to recognize that education is participatory experience. Thus, each student is expected to contribute to further refining the course objectives (so better to articulate your individual expectations and needs), to give feedback to the instructor regarding the adequacy of your learning and how well the course assessment measures that learning (and how these assessment tools can be improved). Finally, each student is challenged to be engaged in the exploration of the fascinating material covered this semester, to participate in class discussions, and to relate in assignments and exercises how you can apply these concepts to your everyday life.

The most important contribution this course can make to your education is to provide you with greater ability to think critically. As a result, this skill will contribute permanently to your further education, that it, for the remainder of your lifetime.

Required Texts/Readings

Textbook: Stanford, C. et al., . Biological Anthropology, Second Edition Pearson Education, 2009. Students should read the assigned readings before they come to class. Also, students should feel free to ask questions when something in the lecture or book is not clear.

Classroom Protocol

Attendance and Participation

I highly recommend students attend class as often as possible. The material in this course can be difficult to understand with just the textbook, and class attendance will be critical in doing the weekly assignments and in the exams.

Make-up Work

If you know in advance that you should be unable to attend an exam, it is your responsibility to contact me immediately by either e-mailing or telephoning me, leaving a message for me at the main department office, or coming by during my office hours.

Only students with a valid documented excuse will be able to take a make-up exam or hand in a late assignment. Late assignments will not be accepted otherwise. All assignments need to

be turned in IN CLASS. **No emailed papers, papers slid under my office door, or put in my office box will be accepted without prior permission.**

Class Behavior

Class attendance and participation is key to success. Anything that detracts from this can be detrimental to you as well as those around you. Therefore, some basic rules of behavior and respect:

- Personal Electronics are not allowed in class. Before class begins, you should turn off all electronics and put them out of sight.
- Laptops will be allowed for note taking only. If you are caught using your laptop to surf the web, send email, etc. during lecture, you will not be allowed to use it again during the semester.
- No newspapers, crossword puzzles, surfing the web, IM, reading of other materials, etc. in class.

Cheating and Plagiarism

I expect you to do your own work. There are many assignments in this class, and while you might work with another student preparing them, **the final product should be yours**. This means it should be written by you, in your own words. If you have any question of how much you can work together on a particular assignment please see me.

- Incidences of cheating and plagiarism will be turned into the academic integrity office.
- I will only discuss individual cases concerning academic integrity in my office.
- Students are responsible for understanding and adhering to the academic integrity policy. http://sa.sjsu.edu/download/judicial_affairs/Academic_Integrity_Policy_S07-2.pdf

Dropping and Adding

Students are responsible for understanding the policies and procedures about add/drops, academic renewal, etc. [Information on add/drops are available at http://info.sjsu.edu/web-dbgen/narr/soc-fall/rec-298.html](http://info.sjsu.edu/web-dbgen/narr/soc-fall/rec-298.html). [Information about late drop is available at http://www.sjsu.edu/sac/advising/latedrops/policy/](http://www.sjsu.edu/sac/advising/latedrops/policy/). Students should be aware of the current deadlines and penalties for adding and dropping classes. The last day to drop is September 3.

Assignments and Grading Policy

Grades will be based weekly assignments, a single midterm and the final exam:

Weekly assignments	: 10 x 10 pts	100	36.5%
Midterm Exam	75 pts	75	27%
Final EXAM	125 pts	100	36.5%
		275	100%

Assignments: The weekly assignments will be given on Tuesday and are due the following Tuesday. They will be emailed out, with a limited number of paper copies available in class. They will have various formats, from problem solving to essay. **There are 12 weekly assignments. You are required to complete 10 of these.** You may complete all and then the lowest scores will be dropped. About half the assignments will be essay. All the assignments are designed to address the GE learning objectives (with each writing assignment covering one of the learning objectives and incorporating the content objectives in these assignments as well). For the essay assignments, writing requirements will include a minimum of 500 words (about 2 pages) per assignment. The essays will be assessed for content, correctness, clarity, conciseness, grammar, and spelling. Failure to satisfactorily complete the writing requirements (3 essays) will result in a course grade of “WU” (i.e., an administrative “F”), regardless of achievement on other portions of the course.

Exams: There are two exams, a midterm and final. These will address content and GE learning objectives. The final exam will be cumulative.

Late assignments will not be accepted and make-up exams will not be offered without a VALID, DOCUMENTED excuse.

Final grades will be calculated based on the highest score in the class. That will set the high score by which all students will be evaluated. For example, if there is a perfect score, the highest score in the class will be 275. If you were to receive a 250, your score would be 250/275 or 91%. On the other hand, if the high score in the class were 260, your final score would be 250/260 or 96%.

Course Schedule:

The course schedule details the dates, topics, readings, and assignments, as well as the GE goals these assignments address.

Week	Date	Topic	Reading	Assignment/ GE objective
1	Aug 24-26	Introduction: What is biological anthropology, how do we study it? Evolutionary theory	Introduction Chapter 1	Assignment 1 GE B2-1
2	Aug 31, Sept 2	Evolutionary theory and Inheritance	Chapter 1,3	Assignment 2
3	Sept 7-9	Genetics	Chapter 2	Assignment 3 GE B2-3
4	Sept 14-16	Modern evolutionary theory	Chapter 4	Assignment 4 GE B2-2
5	Sept 21-23	Human Biology Evolution and human variation	Chapter 5	Assignment 5 GE B2-3
6	Sept 28-30	Primates Primate Ecology	Chapter 6	Assignment 6 GE B2-3
7	Oct 5-7	Primate Behavior Primate Models	Chapter 7	
8	Oct 12-14	MIDTERM REVIEW MIDTERM		
9	Oct 19-21	Primate Evolution, Origins of Hominids	Chapter 8-9	Assignment 7
10	Oct 26-28	Early Human Evolution Earliest hominids Bipedality origins	Chapter 10-11	Assignment 8 GE B2-3
11	Nov 2-4	Australopithecines Earliest Homo Hominid taxonomy	Chapter 11-12	Assignment 9
12	Nov 9	<i>Homo erectus</i> history, fossils <i>Homo erectus</i> morphology, emergence <i>Homo</i> transitions	Chapter 12	Assignment 10 GE B2-1
13	Nov 16-18	Archaic homs Neandertals	Chapter 13	Assignment 11 GE B2-2
14	Nov 23	Modern human origins What it means to be modern	Chapter 14	
15	Nov 30-Dec 2	Evolution of Brain and Language Evolution of Human Behavior	Chapter 15, 17	Assignment 12 GE B2-2
16	Dec 7	Summary/Review		

FINAL EXAM: Friday December 11, 9:45 a.m. – 12:00 p.m.

Reiteration of GE objectives

- B2-1 use methods of science and knowledge derived from current scientific inquiry in life or physical science to question existing explanations;
- B2-2 demonstrate ways in which science influences and is influenced by complex societies, including political and moral issues; and
- B2-3 recognize methods of science, in which quantitative, analytical reasoning techniques are used.

University Policies

Academic integrity

Students should know that the University's [Academic Integrity Policy is available at http://www.sa.sjsu.edu/download/judicial_affairs/Academic_Integrity_Policy_S07-2.pdf](http://www.sa.sjsu.edu/download/judicial_affairs/Academic_Integrity_Policy_S07-2.pdf). Your own commitment to learning, as evidenced by your enrollment at San Jose State University and the University's integrity policy, require you to be honest in all your academic course work. Faculty members are required to report all infractions to the office of Student Conduct and Ethical Development. The website for [Student Conduct and Ethical Development is available at http://www.sa.sjsu.edu/judicial_affairs/index.html](http://www.sa.sjsu.edu/judicial_affairs/index.html).

Instances of academic dishonesty will not be tolerated. Cheating on exams or plagiarism (presenting the work of another as your own, or the use of another person's ideas without giving proper credit) will result in a failing grade and sanctions by the University. For this class, all assignments are to be completed by the individual student unless otherwise specified. If you would like to include in your assignment any material you have submitted, or plan to submit for another class, please note that SJSU's Academic Policy F06-1 requires approval of instructors.

Campus Policy in Compliance with the American Disabilities Act

If you need course adaptations or accommodations because of a disability, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. Presidential Directive 97-03 requires that students with disabilities requesting accommodations must register with the DRC (Disability Resource Center) to establish a record of their disability.

Student Technology Resources (Optional)

Computer labs for student use are available in the Academic Success Center located on the 1st floor of Clark Hall and on the 2nd floor of the Student Union. Additional computer labs may be available in your department/college. Computers are also available in the Martin Luther King Library.

A wide variety of audio-visual equipment is available for student checkout from Media Services located in IRC 112. These items include digital and VHS camcorders, VHS and Beta video players, 16 mm, slide, overhead, DVD, CD, and audiotape players, sound systems, wireless microphones, projection screens and monitors.

Learning Assistance Resource Center (Optional)

The Learning Assistance Resource Center (LARC) is located in Room 600 in the Student Services Center. It is designed to assist students in the development of their full academic potential and to motivate them to become self-directed learners. The center provides support services, such as skills assessment, individual or group tutorials, subject advising, learning assistance, summer academic preparation and basic skills development. [The LARC website is located at http://www.sjsu.edu/larc/](http://www.sjsu.edu/larc/).

SJSU Writing Center (Optional)

The SJSU Writing Center is located in Room 126 in Clark Hall. It is staffed by professional instructors and upper-division or graduate-level writing specialists from each of the seven SJSU colleges. Our writing specialists have met a rigorous GPA requirement, and they are well trained to assist all students at all levels within all disciplines to become better writers. [The Writing Center website is located at http://www.sjsu.edu/writingcenter/about/staff/](http://www.sjsu.edu/writingcenter/about/staff/).

Peer Mentor Center (Optional)

The Peer Mentor Center is located on the 1st floor of Clark Hall in the Academic Success Center. The Peer Mentor Center is staffed with Peer Mentors who excel in helping students manage university life, tackling problems that range from academic challenges to interpersonal struggles. On the road to graduation, Peer Mentors are navigators, offering “roadside assistance” to peers who feel a bit lost or simply need help mapping out the locations of campus resources. Peer Mentor services are free and available on a drop –in basis, no reservation required. The Peer Mentor Center website is located at <http://www.sjsu.edu/muse/peermentor>