San José State University Department of Anthropology Anth 012, Introduction to Human Evolution, Section 3, Fall 2013

Instructor: Dr. Caie Yan

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Office Hours: Tuesday: 10:50-11:50am, or by appointment

Class Days/Time: TR 13:30-14:45

Classroom: WSO 004

GE/SJSU Studies Category: B2/Life Science

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 biocultural evolution over the last sixty million years.

<u>Detailed Course Description:</u> Introduction to Human Evolution is a course designed to allow students to appreciate the evolutionary history of our species and the biological bases that are at the foundation of this process. 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

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.

GE/SJSU Studies Learning Outcomes (LO), if applicable

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

LO1 use methods of science and knowledge derived from current scientific inquiry in life or physical science to question existing explanations;

LO2 demonstrate ways in which science influences and is influenced by complex societies, including political and moral issues;

LO3 recognize methods of science, in which quantitative, analytical reasoning techniques are used.

Course Content Learning Outcomes

Upon successful completion of this course, students should have increased:

- 1. Understanding of 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.

Required Texts/Readings

Biological Anthropology. 7th edition. Michael Alan Park. McGraw Hill Publishing Company, 2012. **ISBN13**: 978-0078034954 **ISBN10**: 0078034957

Library Liaison

Bernice Redfern; Librarian; (408) 808-2038; Bernice.Redfern@sjsu.edu

Classroom Protocol

There will be various in-class participation assignments intended to help students. I highly recommend students attend class as often as possible. I post the outline of lecture slides on line. But I do not post lecture notes.

Please turn off all electronic devices (which include iPods, Mp3 Players, Sidekicks, Cell phones, etc.) before class begins. You can use your laptop to take notes, while surfing the internet is not allowed.

Dropping and Adding

Students are responsible for understanding the policies and procedures about add/drop, grade forgiveness, etc. Refer to the current semester's Catalog Policies section at http://info.sjsu.edu/static/catalog/policies.html.

Add/drop deadlines can be found on the <u>current academic calendar</u> web page located at http://www.sjsu.edu/academic_programs/calendars/academic_calendar/.

The <u>Late Drop Policy</u> is available at http://www.sjsu.edu/aars/policies/latedrops/policy/. Students should be aware of the current deadlines and penalties for dropping classes.

Information about the latest changes and news is available at the <u>Advising Hub</u> at http://www.sjsu.edu/advising/.

Assignments and Grading Policy

| Exam 1 | 25% |
|----------------------------|------|
| Exam 2 | 20% |
| Final | 30% |
| Writing assignments (2) | 20% |
| Fossil practice (in class) | 5% |
| Extra credit project | 5% |
| Total | 100% |

Grading is as followed:

| A | В | С | D | F |
|-----------------|-------------|-------------|-------------|------------------|
| 97% - 100% = A+ | 87-89% = B+ | 77-79% = C+ | 67-69% = D+ | Below $60\% = F$ |
| 93-96% = A | 83-86% = B | 73-76% = C | 63-66% = D | |
| 90-92% = A- | 80-83% = B- | 70-72% = C- | 60-62% = D- | |

<u>Exams</u>: There are two in-class exams and one final exam given during the final week. All exams are composed of multiple choice questions and <u>Scantron T&E 0200</u> will be required. All exams are <u>not</u> cumulative. Exams are based on <u>both</u> the textbook and lectures. I will post study guides and sample questions on line before each exam.

<u>Make-up Exam:</u> If you know in advance that you would be unable to attend an exam, it is your responsibility to contact me before the exams. Only students with a valid documented excuse will be able to take a make-up exam. Documents need to be official and verifiable, such as hospital receipts, police records, etc.

<u>Writing assignment:</u> The writing assignment is worth 20% of your final grade. You are required to write two <u>750+</u> words essay. Detailed instruction and suggested readings for each essay will be posted on line. Writing assignments will be graded based on clarity, conciseness, coherence, and grammar. <u>Please turn in a hard copy of your paper, and an electronic copy via **Turnitin.com** before class on due date. No late assignments will be accepted.</u>

Once I have graded an assignment, it will be in class to pick up. Students should pick up their assignments within two class periods and keep their assignments until the end of the semester; this is intended to prevent problems of lost grades and other similar issues.

Failure to turn in any of the writing assignments (in both versions – hard copy and turnitin.com) will result in an F in the class, regardless of achievement on other portions of the course (this is a university policy on GE course).

Extra credit project: The extra credit project is worth 5% of your final grade. For the extra credit project, you need to draw a hominid fossil distribution map. I will provide a blank map and a list of hominid species. Detailed instruction will be posted on line.

Cheating and Plagiarism

I have zero-tolerance for cheating and plagiarism; if you cheat or plagiarize you will fail the course. Incidences of cheating and plagiarism will be turned into the academic integrity office; you have two (2) office hour periods to discuss the issue with me prior to my turning in the report. I will only discuss individual cases concerning academic integrity in my office. Students are responsible for understanding and adhering to the academic integrity policy.

University Policies

Classroom Recording

Course material developed by the instructor is the intellectual property of the instructor and cannot be shared publicly without his/her approval. You may not publicly share or upload instructor generated material for this course such as exam questions, lecture notes, or homework solutions without instructor consent.

Common courtesy and professional behavior dictate that you notify someone when you are recording him/her. You must obtain the instructor's permission to make audio or video recordings in this class. Such permission allows the recordings to be used for your private, study purposes only. The recordings are the intellectual property of the instructor; you have not been given any rights to reproduce or distribute the material.

Credit Hours

Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of forty-five hours over the length of the course (normally 3 hours per unit per week with 1 of the hours used for lecture) for instruction or preparation/studying or course related activities including but not limited to internships, labs, clinical practica. Other course structures will have equivalent workload expectations as described in the syllabus.

Academic integrity

Your commitment as a student to learning is evidenced by your enrollment at San Jose State University. The <u>University's Academic Integrity policy</u>, located at http://www.sjsu.edu/senate/S07-2.htm, requires 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 <u>Student Conduct and Ethical Development website</u> is available at 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 your assignment or any material you have submitted, or plan to submit for another class, please note that SJSU's Academic Policy S07-2 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 <u>Disability</u> Resource Center (DRC) at http://www.drc.sjsu.edu/ to establish a record of their disability.

Student Technology Resources

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

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/.

SJSU Writing Center

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 https://www.sjsu.edu/writingcenter/about/staff/.

Peer Mentor Center

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/

Course Schedule

This tentative schedule---including assignment due dates, in class exam dates, date of the final exam--- is subject to change with fair notice and how the notice will be made available.

| Week | Date | Торіс | Readings | Assignments & Deadlines |
|------|---------------------|--|---------------------------------|--------------------------|
| 1 | 8/22 | Introduction to Class and biological anthropology | Pp: 1-21 | |
| 2 | 8/27 8/29 | History of Evolutionary Theory Natural Selection & Basic Concepts of Evolution | Pp: 23-40 | |
| 3 | 9/3 9/5 | DNA and Chromosomes Cell division and protein synthesis | Pp: 43-50, 364-366 Pp: 50-58 | |
| 4 | 9/10 9/12 | Mendelian Genetics Modern Synthesis (Evolutionary Forces) | Pp: 367-370; 61-79 | |
| 5 | 9/17 9/19 | Human Variation and Race Human Adaptation | Pp: 297-308 Pp: 321-345 | |
| 6 | 9/24 9/26 | Review Exam I | | |
| 7 | 10/1 10/3 | Speciation process and Evolutionary time table Prosimians and Tarsiers | Pp: 83-114 Pp: 117-138 | |
| 8 | 10/8 10/10 | Anthropoids Apes | Pp: 117-138 Pp: 138-146 | Writing assignment I due |
| 9 | 10/15 10/17 | Primate behavioral ecology Fossilization, Dating Fossils | Pp: 149-167 Pp: 171-196 | |
| 10 | 10/22 10/24 | Primate Evolution and what makes a fossil a hominid? Contenders for the earliest hominids | Pp: 199-210 Pp: 221-225 | |

| Week | Date | Торіс | Readings | Assignments & Deadlines |
|---------------|-------|--|----------------------|----------------------------|
| 11 | 10/29 | Exam II | | |
| | 10/31 | Australopithecines | Pp: 210-221, 226-231 | |
| 12 | 11/5 | Video: Becoming human (I) | | Writing assignment II due |
| | 11/7 | Early Homo species and Homo erectus | Pp: 235-259 | |
| 13 | 11/12 | Sibling species of Homo erectus, Homo heidelbergensis | Pp: 259-266 | |
| | 11/14 | Archaic Homo sapiens: Neanderthals | Pp: 266-276 | |
| 14 | 11/19 | Origins of Anatomically Modern Humans | Pp: 276-294 | |
| | 11/21 | Video: Becoming human (III) | | |
| 15 | 11/26 | Arriving in the New World: Paleo-Indians | Pp: 309-317 | Fossil practice (in class) |
| | 11/28 | No Class (Thanksgiving) | | |
| 16 | 12/3 | Origins of Agriculture and Biological Impacts of Culture | | Extra credit project due |
| | 12/5 | Review | | |
| Final Exam | 12/12 | 12:15-14:30 | | |