

# **ANTH 12**

## **Introduction to Human Evolution**

**Fall 2015, Section 1 (40014)**  
**San José State University**  
**Department of Anthropology/**  
**College of Social Sciences**

**Instructor:** Viviana Bellifemine Sanchez-Chopitea  
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**Office Hours:** Mondays 12-1 pm  
**Class Days/Time:** Mondays and Wednesdays 10:30 – 11:45 pm  
**Classroom:** WSQ 004  
**GE/SJSU Studies Category:** B2/Life Science

### **Faculty Web Page and MYSJSU Messaging**

Copies of the course materials such as the syllabus, major assignment handouts, and grades can be found on the Canvas course web page at <http://www.sjsu.edu/at/ec/canvas/>. The course Canvas will be published by the first day of class. My SJSU web page is available at <http://www.sjsu.edu/people/viviana.sanchezchopitea/>. You are responsible for regularly checking with the messaging system through MySJSU and through Canvas to be current with any updates.

### **Course Description**

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.

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.

## **Course Goals and Learning Objectives**

At SJSU, students are encouraged to recognize that education is a participatory experience. Thus, each student is expected to contribute to further refining the course objectives (so as to better 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 is, for the remainder of your lifetime.

## **GE B/SJSU Learning Outcomes (GELO)**

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

- GELO1 use methods of science and knowledge derived from current scientific inquiry in life or physical science to question existing explanations;
- GELO2 demonstrate ways in which science influences and is influenced by complex societies, including political and moral issues; and
- GELO3 recognize methods of science, in which quantitative, analytical reasoning techniques are used.

In all CLO the core GE requirements of Information Literacy, Qualitative and Quantitative Reasoning, and Critical Thinking are addressed through particular assignments or parts of assignments.

Course Learning Outcome	Assessment Instrument	Basic Competency Measure
1- use methods of science and knowledge derived from current scientific inquiry in life or physical science to question existing explanations	Writing exercises on particular topics focusing on underlying methods. Targeted exam questions.	Accurate identification of methods expressed in written assignments. 85% or higher reflects competence.
2- demonstrate ways in which science influences and is influenced by complex societies, including political and moral issues	Writing exercises and in-class discussions weighing validity of methods. Targeted exam questions.	Accurate identification of methods expressed in oral or written assignments. 85% or higher reflects competence.
3- recognize methods of science, in which quantitative, analytical reasoning techniques are used.	Writing exercises and in-class activities of cause-effect analysis. Targeted exam questions.	Correct application of developed concepts in written exercises and examinations. 85% or higher reflects competence.

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

- CLO1 explain the evolutionary process, how it works, and how scientists have come to understand the process (specifically to understand ourselves).
- CLO2 describe the evolutionary history of our species and the biological bases that are at the foundation of this process.
- CLO3 comprehend 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.
- CLO4 explain from a comparative perspective how humans are related to other primates (and what this implies structurally, physiologically, and behaviorally).

### Required Texts/Readings

- **Textbook**

*Exploring Biological Anthropology: The Essentials*. Stanford Craig, John S. Allen, Susan C. Antón, Pearson Publishing Company, 2013. 3<sup>rd</sup> edition (earlier editions acceptable). ISBN: 978-0-205-90733-5

- **Other readings:**

Supplemental readings or other material will be posted on Canvas.

### Course required Assignments and Grading Policy

You will be required to enroll in Canvas to access course materials, grades, course announcements, and submit papers and assignments. A quick guide is found at:

[http://www.sjsu.edu/at/ec/canvas/student\\_resources/index.html](http://www.sjsu.edu/at/ec/canvas/student_resources/index.html)

Students will be graded on the following assignments:

- **Three Exams:**

Two tests and a comprehensive final exam will be given during the semester. The dates are indicated in the schedule table at the end of the syllabus. The tests and final exam are multiple choice and will require use of **Scantron T&E 0200**. Make sure that all the required fields in the form (name, student number, etc.) are completed before you turn in your test. You can fill in the form before you arrive to the class. The final exam will include some of the main concepts introduced from the beginning of the semester. Objective questions are included to assess core content. (each exam = 100pts, Final = 150pts).

***Failure to take any exam will result in a failing grade regardless of other completed work***

- **Writing requirements:**

include two papers of at least 750 words. All writing assignments must be turned in via Canvas by the scheduled due date. Details on these assignments will be discussed in class and posted in Canvas. Topics need to address the GE learning objectives detailed above. Writing assignments will be assessed for grammar, clarity, conciseness and coherence. Run your papers through the spell checker before submitting. I encourage you to consult with the Writing Center if you need assistance to proof your grammar and construction. This is a resource you have paid for with your tuition!! I provide some further information later in this syllabus. Guidelines for the written assignments will be provided during class. (each essay = 50pts)

***All writing assignments are required to pass the class. Failure to complete any of the two writing assignments will result in a failing grade regardless of other completed work.***

- **In-class Exercises**

There will be a number of class interactive exercises and discussions in individual or group form throughout the semester. Some exercises may include additional reading material providing a glimpse at the current issues and controversies surrounding the discipline. This material will be provided in Canvas for analysis and discussion. All written activities are due the same day during class and **cannot be made up** (100pts).

- **Class participation**

Student participation is important to promote critical thinking and evaluate the understanding of class material (50pts).

Summing up, grade will be based on the following:

Exam # 1	100	17%
Exam # 2	100	17%
Final (Comprehensive)	150	25%
Writing Assignments (2 x 50pts.)	100	17%
In-class exercises	100	17%
Class participation	50	7%
Total	600	100%

**Attendance** is strongly encouraged and expected. Your success in the class depends on your presence during lecture and class activities. I do not provide the PowerPoints of the lectures hence you are responsible for obtaining class notes. Missing lectures may result in failing the class.

NOTE that University policy F69-24, “Students should attend all meetings of their classes, not only because they are responsible for material discussed therein, but because active participation is frequently essential to insure maximum benefit for all members of the class. Attendance per se shall not be used as a criterion for grading.”

Below are basic guidelines for grading. Letter grades will be assigned based on score percentages, as follows:

A	B	C	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-	80-82% = B-	70-72% = C-	60-62% = D-	

To earn an A: All assignments must be completed, on time, and demonstrate mastery of conceptual as well as critical content. Assignments will exhibit thoughtful and critical analysis, effort at conceptual synthesis, and originality. Papers will be carefully proofed for grammatical and typographical errors and exhibit exemplary writing appropriate to the discipline. Class responsibilities achieved. Assignments must be of consistently high quality in terms of content and execution. Examinations will score in the range of 90% and above. Final project complete, original, or innovative.

To earn a B: All assignments must be completed and demonstrate general comprehension of conceptual as well as critical content. Assignments will exhibit thoughtful analysis and effort should be made at conceptual synthesis. Class responsibilities achieved. Papers will be carefully proofed for grammatical and typographical errors and exhibit very few writing problems. Assignments must be of good quality in terms of content and conform to standards appropriate to the discipline.

Exams may score in the 80% and above range. Final project completed and original or innovative.

To earn a C: At least 80% of assignments must be completed, and demonstrate general understanding of critical content. Knowledge of basic conceptual material should be demonstrated. Class responsibilities achieved. Assignments will exhibit thoughtful effort with few errors in content. Papers will likely contain grammatical and typographical errors and exhibit general writing problems. Citation standards incorrect. Exams may score in the 75% and above range. Final project completed at average level of competence.

To earn a D: Failure to turn in assignments in a timely manner or to complete more than 70% of assignments. Only basic knowledge of conceptual material demonstrated. Critical analysis not exhibited, suggesting minimal effort by student. Assignments lack careful or thoughtful effort and several errors in content. Failure to achieve class responsibilities or barely

acceptable effort. Minimal engagement in class projects. Papers will likely contain grammatical and typographical errors and exhibit general writing problems. Citation standards ignored. Exams may score below 75% range. Final project completed.

To earn an F: Failure to turn in assignments in a timely manner or to complete and submit more than 50% of assignments. Basic knowledge of conceptual material and critical analysis not demonstrated. Assignments exhibiting a lack of careful or thoughtful effort and major errors evident in content. Papers will likely contain grammatical and typographical errors along with general writing problems, especially in word usage. Citation standards ignored. Exams may score below the 60% range. Final project possibly incomplete or late, or failure to take the scheduled exams.

Grade I: Special circumstances. Failure to complete and submit better than 60% of assignments owing to extraordinary causes as defined by University policy. Must complete all Exams. To make up this grade will require an additional project at instructor's discretion.

**IMPORTANT:** Read the syllabus, familiarize yourself with Canvas, and keep up with the reading. Your presence in class is very important, if you miss a day you are responsible to get the notes from a classmate. If you have any questions or issues do not hesitate to contact me or see me during office hours. Do not wait too long to communicate if you are having problems in class or with the class material. Your success in the class depends on your understanding of the material and completing the assignments on time. I strongly encourage you to reach me through email or in person for any questions you may have that are not already addressed in the syllabus or Canvas.

## Classroom Protocol

- **Student participation and attendance is essential** for academic success. Students are expected to attend class. Students are encouraged to attend class regularly since material presented and discussed in the classroom may be additional to the information presented in the assigned textbook.
- **Arriving late and leaving early is not acceptable** unless there is an exceptional circumstance or has been previously arranged with the instructor.
- Laptops are only permitted for note taking and for specific in-class exercises, and only under the specific approval of the instructor. Any other electronic devices need to be off during class. Activities such as texting, surfing the web, chatting, or emailing during class are disruptive and constitute disrespectful behavior towards the instructor and other students. Please be courteous and respectful.
- **All assignments are due the date marked in the class schedule** unless the date has been officially changed by the instructor. **All written assignments are to be submitted through "Turnitin" in Canvas or as indicated by the instructor.**
- **Make-up exams** will be given only if 1) you know in advance that you are unable to attend due to an important and verifiable reason and have arranged in advance with me an alternative date prior to its scheduled date, 2) if any reason arises beyond your control you need to notify me before class by email and provide a verifiable reason

(note from physician/nurse, etc.) for the absence. Only students with a valid documented excuse will be able to take a make-up a test. **Unexcused late written assignments** will be subject to a 10% penalty per day and not accepted after one week from the original due date.

- **Students may not leave the room during an examination.** This will be an indication to the instructor that the student has completed the exam and it will be collected without further opportunity to continue.
- **All lectures and course materials, including exams, assignments, quizzes, handouts, and exercises, are copyrighted and may not be distributed without written permission from the instructor.**
- Discussions of controversial topics can become emotional. Such discussion demands respect and intellectual honesty toward and between fellow students, instructor, and from instructor toward students. Personal attacks on individuals holding non-conventional/controversial ideas will not be tolerated.
- Students are encouraged to ask questions before, during, and after class and to take full advantage of scheduled office hours or to make appointments.

## **Departmental Goals**

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Learn about the goals of the anthropology department and how it can benefit your education.

Goals <http://www.sjsu.edu/anthropology/departmentinfo/goals/index.html>

## **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.

## **University Policies**

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Here are some of the basic university policies that students must follow.

### **General Expectations, Rights and Responsibilities of the Student**

As members of the academic community, students accept both the rights and responsibilities incumbent upon all members of the institution. Students are encouraged to familiarize themselves with SJSU's policies and practices pertaining to the procedures to follow if and when questions or concerns about a class arises. See [University Policy S90-5](http://www.sjsu.edu/senate/docs/S90-5.pdf) at <http://www.sjsu.edu/senate/docs/S90-5.pdf>. More detailed information on a variety of related topics is available in the [SJSU catalog](http://info.sjsu.edu/webdbgen/narr/catalog/rec-12234.12506.html), at <http://info.sjsu.edu/webdbgen/narr/catalog/rec-12234.12506.html>. In general, it is recommended that students begin by seeking clarification or discussing concerns with their instructor. If such conversation is not possible, or if it does not

serve to address the issue, it is recommended that the student contact the Department Chair as a next step.

### **Dropping and Adding**

Find the procedures and deadlines for adding and dropping classes.

Catalog Policies <http://info.sjsu.edu/static/catalog/policies.html>.

Add/drop deadlines [http://www.sjsu.edu/provost/services/academic\\_calendars/](http://www.sjsu.edu/provost/services/academic_calendars/)

Late Drop Policy <http://www.sjsu.edu/aars/policies/latedrops/policy/>

### **Consent for Recording of Class and Public Sharing of Instructor Material**

All students must obtain the instructor's permission if they wish to record lectures or distribute materials from the class.

University Policy S12-7 <http://www.sjsu.edu/senate/docs/S12-7.pdf>

### **Academic integrity**

Learn about the importance of academic honesty and the consequences if it is violated.

University Academic Integrity Policy S07-2 <http://www.sjsu.edu/senate/docs/S07-2.pdf>

Student Conduct and Ethical Development website <http://www.sjsu.edu/studentconduct/>

### **Campus Policy in Compliance with the American Disabilities Act**

Here are guidelines to request any course adaptations or accommodations you might need.

Presidential Directive 97-03 [http://www.sjsu.edu/president/docs/directives/PD\\_1997-03.pdf](http://www.sjsu.edu/president/docs/directives/PD_1997-03.pdf)  
Accessible Education Center <http://www.sjsu.edu/aec>

### **Resources**

The university provides resources that can help you succeed academically. Just look here.

Academic Success Center <http://www.sjsu.edu/at/asc/>

Peer Connections website <http://peerconnections.sjsu.edu>

Writing Center website <http://www.sjsu.edu/writingcenter>

Counseling Services website <http://www.sjsu.edu/counseling>



## ANTH 12: Introduction to Human Evolution, Fall 2015, Course Schedule

*The schedule is subject to change with fair notice; changes will be announced on Canvas and at the beginning of the class. You are responsible for finding out any changes made to the original schedule.*

Week	Date	Topics, Readings, Assignments, Deadlines
1	8/24	Introduction to the course.
	8/26	Anthropology and its subfields. Foundations of biological anthropology. <b>Reading:</b> Ch 1
2	8/31	Science, epistemology, the scientific method. Origins of evolutionary thought.
	9/2	Linnaeus, Wallace/Darwin: Theory of evolution by natural selection. Science and religion, <b>Reading:</b> Ch 2
3	9/7	Genetics: Cells and molecules. DNA and molecular anthropology. <b>Activity:</b> In-class exercise
	9/9	Genetics: Genotype to phenotype. <b>Reading:</b> Ch 3, Ch 4
4	9/14	Mendelian genetics.
	9/16	Mendelian genetics. Mutation. <b>Reading:</b> Ch 4
5	9/21	Genetics: Beyond Mendel.
	9/23	The forces of evolution and the formation of species. <b>Reading:</b> Ch 5
6	9/28	Human variation and race. Human adaptation.
	9/30	<b>EXAM # 1</b> <b>Reading:</b> Ch 6
7	10/5	Primates: classification, Prosimians and Tarsiers.
	10/7	Anthropoids. Primates as models of human evolution. <b>Reading:</b> Ch 7 <b>Writing assignment # 1 Due on Monday 5th.</b>
8	10/12	Fossils. The hominid record. Dating fossils, and evolutionary time.
	10/14	Climate change and early primate evolution. <b>Reading:</b> Ch 9

9	10/19	Early hominins and <i>Australopithecus</i> .
	10/20	Early Hominins (Video) <b>Reading:</b> Ch 10
10	10/26	Early <i>Homo</i> species and Oldowan Tools. Humans disperse: <i>Homo erectus</i> and <i>Homo ergaster</i> .
	10/28	Little people from Flores: <i>Homo floresiensis</i> . <b>Ex.</b> The Hobbit. <b>Reading:</b> Ch 11
11	10/2	<b>EXAM # 2</b>
	10/4	African, Asian, and European Archaic <i>Homo sapiens</i> . <b>Reading:</b> Ch 12
12	11/9	Neanderthals. (Video)
	11/11	<b>No Class-Veterans Day</b> <b>Reading:</b> Ch 12
13	11/16	Origins of anatomically Modern Humans. Distribution of early Humans. Archaeology of Modern Humans. Arriving in the New World: Paleo-Indians.
	11/18	Origins of modern humans (Video) <b>Reading:</b> Ch 13 <b>Writing assignment # 2 Due on Monday 16th</b>
14	11/23	Origins of agriculture and its effects on health.
	11/25	Evolution of the brain <b>Reading:</b> Ch 14
15	11/30	Biomedical and forensic anthropology in practice
	11/2	Bioarchaeology in practice. <b>Reading:</b> Ch15
16	12/7	REVIEW
Final Exam	12/15	WSQ 004 9:45 – 12:00