

# **San José State University, Fall 2012**

## **Anth 12 (45086): Introduction to Human Evolution**

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<b>Office Hours:</b>	M: 3-4 pm, and by appointment
<b>Class Days/Time:</b>	MW: 1:30-2:45 pm
<b>Classroom:</b>	Clark Hall 310
<b>Prerequisites:</b>	None
<b>GE Category:</b>	Category B2: Life Science

You may also leave messages for me in my mailbox in CL 469 (the Anthro Dept). The departmental FAX is 924-5348. Students are encouraged to attend office hours; if you are unable to attend, please let me know and we can try to arrange alternative times and days.

### **MYSJSU Messaging**

You are responsible for regularly checking with the messaging system through MySJSU (or other communication systems as indicated by the instructor).

### **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. However, during the semester students will acquire basic biological knowledge relating to molecular biology, cell reproduction, cellular and population genetics, the fundamental principles of micro- and macro-evolutionary theory (especially the role of natural selection and genetic drift), 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 as 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 some basic questions relating to human origins: 1) what kind of creature are we? and 2) how did we get to be this way?

## **Course Goals and Student Learning Objectives**

### **GE B Learning Outcomes (LO)**

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; and

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

### **Course Content Learning Outcomes**

More specifically, Area B2 Life Science courses such as Anth 12 focus on:

LO4: structures and functions of living organisms;

LO5: levels of organization of living systems, from atom to planet;

LO6: strategies for survival and reproduction;

LO7: patterns of evolution;

LO8: principles of genetics, including the basis for variation; and

LO9: interaction of organisms and their natural environment.

### **Specific Course Objectives**

In addition to the above overall objectives of all life science GE courses, Anth 12 also has several more specific learning objectives. By the completion of this course, students should be able to:

- develop critical thinking skills;
- distinguish testable hypotheses from non-testable ones;
- distinguish among different kinds of explanations, especially how hypotheses differ from non-scientific explanations, as well as from more general theories;
- demonstrate an understanding of the methods and limitations of scientific investigation;

- recognize how evolutionary theory is part of a wider scientific approach to understanding the universe;
- recognize the nature of one's own biases & the methods scientists use to control for bias;
- appreciate the historical development of the Western scientific tradition, especially as related to the formulation of evolutionary theory;
- distinguish between the primary factors influencing evolutionary change (natural selection, sexual selection, mutation, gene flow and genetic drift), and recognize how these factors are integrated into a single, synthetic theory of evolution;
- differentiate and apprehend the interrelationships of basic life processes at the molecular, chromosomal, cellular, individual, populational, and species level;
- discern how basic life processes such as sexual reproduction and recombination influence genetic variation, and the role such variation plays in evolution;
- recognize how humans fit within an organic continuum and how this organic diversity is interpreted and organized in classification schemes;
- understand the relationships of humans to other organisms - especially the other primates;
- appreciate how patterns of human individual and populational diversity can (and cannot) be explained biologically; and
- distinguish science from pseudo-science and "pop-science", and apply a scientific approach to answer questions about the earth and environment.

## DEPARTMENT OF ANTHROPOLOGY OBJECTIVES

The Department of Anthropology seeks to enhance student knowledge and skills in a number of areas. Each course offered by the department fulfills one or more of the following ten objectives; Anth 12 fulfills the objectives in bold:

1. **Understanding culture as the distinguishing phenomenon of human life, and the relationship of human biology and evolution.**
2. **Awareness of human diversity and the ways humans have categorized diversity.**
3. **Knowledge of the significant findings of** archaeology, cultural anthropology, and/or **physical anthropology**, and familiarity with the important issues in each subdiscipline.
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 contemporary 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 subdisciplines of anthropology, and the ability to apply appropriate research methods in at least one subdiscipline.**
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**

At a general level, this course concerns primarily the nature of the evolutionary process - how it works - and how scientists have come to understand the process, (and even more generally, how science as a “way of knowing” seeks to comprehend and generalize about natural phenomena in the known universe). The specific evidence relating to understanding human evolution is then used to illustrate how these evolutionary biological processes operate. 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 in both oral discussion and written form.

At SJSU students are encouraged to recognize that education is a participatory experience. Thus, each student is expected during the semester 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 tools measure that learning, and how these assessment tools might be improved. Finally, each student is challenged to be engaged in the exploration of the fascinating material covered in this course, to participate in class discussions, to ask questions, and to relate in assignments and exercises how you can apply these concepts to your own life; that is, to be an active participant in your own education. 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 rest of your life. Never consider your education completed when you leave the University, but continue to build your knowledge by using and refining the skills learned here.

## **Required Texts/Readings**

### **Textbook**

- Exploring Biological Anthropology: The Essentials, (2nd ed) Craig Stanford, John Allen and Susan Anton., (Prentice Hall, 2010; ISBN-13: 978-0-205-70540-5).
- Darwin For Beginners, Jonathan Miller (1982); **begin reading this book immediately.**
- The Cartoon Guide to Genetics, Larry Gonick and Mark Wheelis (1992)

### **Other Required Readings:**

- Required handout packet/reader sold in the 5th class (M 9/10) for \$10, tax included. In addition to handouts, this reader includes some articles, all your out-of-class writing assignments, the two practice exams to be used to prepare for your two midterms, as well as 3 practice quizzes. If you don't purchase it in class that day, you may purchase it after that date at Maple Press, San Carlos St. between 10th & 11th. In addition, you are encouraged - but not required - to purchase the recommended Human Evolution Coloring Book, especially if you are a primarily visual learner.

### **Attendance:**

After the first few weeks, roll will not be called. Dropping the course is your responsibility, and I will not do it for you should you vanish during the semester. Pay attention to the drop deadline in the online Schedule of Classes. Attendance is both necessary and expected, and it is exceedingly unlikely that you will get anything out of the class - including a passing grade - should you miss many class sessions. Class will begin on time and tardiness should be avoided, although you are strongly encouraged to attend class even if quite late: if unavoidable, come in quietly and take a seat towards the rear; don't just blow off class if you're late. I also have no problem with you recording class sessions, but you'll probably want to sit up front for good auditory reception.

### **Classroom Protocol**

#### **CHEATING:**

At SJSU, cheating is the act of obtaining or attempting to obtain credit for academic work through the use of any dishonest, deceptive, or fraudulent means. Cheating at SJSU includes but is not limited to:

Copying in part or in whole, from another's test or other evaluation instrument; submitting work previously graded in another course unless this has been approved by the course instructor or by departmental policy; submitting work simultaneously presented in two courses, unless this has been approved by both course instructors or by departmental policy; altering or interfering with grading or grading instructions; sitting for an examination by a

surrogate, or as a surrogate; any other act committed by a student in the course of his or her academic work which defrauds or misrepresents, including aiding or abetting in any of the actions defined above.

#### **PLAGIARISM:**

At SJSU plagiarism is the act of representing the work of another as one's own (without giving appropriate credit) regardless of how that work was obtained, and submitting it to fulfill academic requirements. Plagiarism at SJSU includes but is not limited to:

The act of incorporating the ideas, words, sentences, paragraphs, or parts thereof, or the specific substances of another's work, without giving appropriate credit, and representing the product as one's own work; and representing another's artistic/scholarly works such as musical compositions, computer programs, photographs, painting, drawing, sculptures, or similar works as one's own.

#### **POLICY ON CHEATING AND PLAGIARISM:**

Please familiarize yourself with the Policy on Academic Integrity included above and in the online course schedule < <http://info.sjsu.edu/web-dbgen/narr/static/soc-summer/integrity.html>>. In this class there are severe penalties for cheating (on exams) and for plagiarism (i.e., copying directly or close to directly someone else's words and representing them as your own). Plagiarism is cheating. There will be a zero tolerance for cheating in any form, with an immediate "F" in the course and an academic dishonesty report made to the Dean of Undergraduate Studies. Receiving two such reports is grounds for suspension or expulsion from the university. Please refer to item 15 on page 10 of this syllabus (the writing guidelines).

If you would like to include in your paper any material you have submitted, or plan to submit, for another class, please note that SJSU's Academic Integrity policy S04-12 requires approval by instructors.

#### **IMPORTANT CAVEATS AND NOTES:**

**Cell Phones:** Students - and the instructor - will turn their cell phones off or put them on vibrate mode before they enter class, and they will put them away. They will not answer their phones in class. Students whose phones disrupt the course and do not stop when requested by the instructor will have their phones temporarily confiscated and may be referred to the Judicial Affairs Officer of the University.

**Computer Use:** In this classroom, students will be allowed to use computers only for class-related activities. These include activities such as taking notes on the lecture underway, and finding Web sites to which the instructor directs students during the lecture. Students who use their computers for other activities will be warned once; if they persist they will be prohibited from using a computer in class, and, at a maximum, will be referred to the Judicial Affairs Officer of the University for disrupting the course. Students are urged to report to their instructors computer use that they regard as inappropriate (i.e., used for activities that are not class-related).

### **Classroom behavior:**

Expectations about classroom behavior; see Academic Senate Policy S90-5 <<http://www2.sjsu.edu/senate/s90-5.htm>> on Student Rights and Responsibilities.

Finally, in the 35 years that I have been teaching at the university level, I have cancelled class a total of 2 times. Therefore, if you come to class and see a door sign indicating that class is cancelled, you should assume it is a hoax and wait outside the class for a minimum of 15 minutes before leaving. This 15-minute rule is a general rule for all classes, as professors - like students - can also sometimes run late.

### **Classroom Recording (Policy S12-7)**

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.

**NOTE:** I permit all students to voice-record - but not video - my lectures. You are also encouraged to use your camera phones to snap photos of any board work or slides.

### **Dropping and Adding**

Students are responsible for understanding the policies and procedures about add/drops, academic renewal, etc., which can be found on the SJSU web site (but not easily). Add info: <http://www.sjsu.edu/registrar/FAQs/Registration/index.htm>; Drop info: <http://www.sjsu.edu/aars/policies/latedrops/>. Students should be aware of the current deadlines and penalties for adding (9/11/12) and dropping (9/4/12) classes.

## **Assignments and Grading Policy**

### **COURSE REQUIREMENTS AND GRADING:**

Students will be asked to complete both in-class examinations as well as take-home assignments. Your final grade will be based on a possible 560 points. The bulk of your final grade will be determined by your performance on two midterms worth 100 points each, and a final exam worth 150 points. In addition, there will be three 50-point take-home quizzes handed out generally on Wednesdays and due (at 1:30 pm sharp) the following Monday, for a total of 150 points. All of the exams and quizzes will require T&E 0200 scantron forms and a #2 pencil, so **you will need to purchase a total of 6 T&E 0200 scantron forms**. All exams and quizzes will consist of 5-option multiple choice questions. Finally, because this is a Core GE class, part of your grade will be based on doing at least 6 pages (1500 words) of written work, which will be assessed for correctness, clarity, and conciseness. In these assignments, you will have a chance to explore your own responses to the ideas and information you encounter in the class, as well as to deepen your understanding through reflection, analysis, and research. Some of the writing assignments will be based on participation in in-class activities (including

small-group discussions and class exercises). One will be a comprehensive research exercise which will include data collection, analysis and interpretation of results, with a written report. Complete instructions regarding the research exercise/report and all writing assignments will be handed out in class. All of these assignments and exercises will require you to practice analytical, composition, and critical thinking skills, and will be worth a total of 60 points. Some of these will be in-class assignments and you must be in class for these! Note: There will be significant penalties for late papers, and all assigned writing assignments must be completed in order to pass the course.

To summarize, your final semester grade in this course will be based on the following:

• Take-home quizzes: 3 X 50 pts. =	150 (26.8%)
• Midterm exams: 2 X 100 pts. =	200 (35.7%)
• 6 pages of quantitative exercise/report, & other writing assignments =	60 (10.7%)
• Final exam =	<u>150 (26.8%)</u>
TOTAL POINTS:	560 (100%)

#### GRADING:

Grading will be based on percent mastery, with 88-100% = A, 78-87% = B, 65-77% = C, 50-64% = D, and lower than 50% = F. However, should the performance of the class fall below these grade cutoffs, then students will be ranked according to the total points accrued and the course grade will be assigned according to a normal distribution, with the average performance given a middle "C" and the grade ranges determined by the standard deviation (i.e., a curve). Therefore, only A's and B's will be awarded if no class member receives less than 78% of the total points, and students will not be competing with each other. However, even if no one receives 88% of the total possible points, the highest ~7-15% will still receive A's. Plus (+) grades are given to those within 1% point of a major grade change, while minus (-) grades are only given to students bumped up to a higher grade based on improvement on the final exam. There is no extra credit, and "D" is the lowest passing grade that confers GE credit.

#### EXAMS:

Midterm #1 will cover sessions 1 through 12, and is on Monday, October 8.

Midterm #2 will cover sessions 14 through 20, and is on Monday, November 5.

The final exam will be minimally cumulative (i.e., previous midterm questions), with an emphasis on the last 9 sessions and readings, and will be held on Monday, December 17 from 12:15 pm to 2:30 pm.

You will need to memorize a fair amount of specialized vocabulary, and to think through biological ideas that are unfamiliar to you; both of these activities require time and effort. You are expected to take notes in class, ask questions in and out of class, and to do the reading on time. This will enable you to follow the development of ideas and information, so that you can bring questions and comments to class and to the instructor's office hours in a timely fashion. ).



## EXAMS:

Exam #1 will cover sessions 1 through 12, and is on Monday, 10/8/12.

Exam #2 will cover sessions 14 through 22, and is on Wednesday, 11/14/12.

The Final Exam will be minimally cumulative, with an emphasis on the last 8 sessions and related reading, and will be held on Monday, 12/17 from 12:15-2:30 pm (the 4th day of finals). For those unable to take the final at its official time, you may take it on the final exam makeup day: Wednesday, 12/19. All exams will consist of 5-option multiple choice questions, and will be administered using Scantron form T & E 0200 and a #2 pencil, although the final may also include a short essay. Please purchase 6 T&E 0200 forms at the beginning of the semester, and do not fold, spindle or mutilate them. Note: there will be no electronic devices (i.e., cell phones, pagers, palm pilots or other handhelds) or dictionaries allowed during exams; I will, however, be more than happy to clarify questions during the exams, including basic English translations, especially (but not exclusively) for non-native speakers of English.

## MAKE-UP POLICY:

Make-up exams will not be given unless 1) a phone message is left at 924-5721 **and** an email or text (to my cell) is sent before the scheduled time of the exam, and 2) the reason for missing the exam is important, beyond your control and 3) is verifiable by a reliable source. In the case of illness, an official note from a physician or nurse-practitioner is required. There will only be one make-up exam given, and it may be different than the original exam. If you are going to hand written work in late, you must also notify the instructor before the due date of the written assignment. There will be a penalty for written work handed in late if the reason is not important, beyond your control and verifiable by a reliable source; see paper instructions below. All assigned work must be completed in order to pass the course.

## GUIDELINES FOR ALL OUT-OF-CLASS WRITING ASSIGNMENTS:

1. Do not put any sort of cover or title page on your papers.
2. Staple the pages together in the upper left-hand corner. Note: a paper clip is not a staple...
3. In the upper right-hand corner of the first page only, please provide the following info:

- **Your name (first name first, last name last)**
- **Anth 12 (2)**
- **Paper #X (where X = a whole number between 1 and 5. Your first out-of-class paper will be paper #2, and so on.)**
- **The due date**

4. This 4 line block of information should be single-spaced and as close to the upper right margin of the first page as possible. The rest of the paper should be double-spaced.
5. Nothing else should appear at the top of the paper; no title, not my name: nothing.
6. Skip one line only (i.e. a double space) and begin the body of your paper. The first sentence of the first paragraph should indicate the topic of the writing assignment.
7. Do not worry about formal paper construction, i.e., an introductory paragraph, a formal concluding paragraph or whatever; simply address the questions asked.
8. For papers longer than a single page, number your pages at the bottom middle of each page.

9. No margin should be larger than 1"; that means all margins: left, right, bottom (and the top of all pages other than the first page).
10. If the assignment is for 3 pages, this means 3 complete pages; not 2 and 1/2, not 2 and 3/4, but 3 full pages. Points will be deducted for short assignments. It is probably to your advantage to go a few sentences over the minimum if you aren't certain about length.
11. Left justify only. Do not justify the right margin; leave it ragged.
12. Use "standard" fonts, and do not use any font larger than 12 point or smaller than 9 point.
13. Use 5-space indentations for new paragraphs; do **not** use line-breaks between paragraphs.
14. DO NOT QUOTE! All of the writing should be in your own words. If you need to summarize the content of another person's writing, identify your source and paraphrase. This is good practice; if you can paraphrase accurately, then you understand what the person is saying. NO QUOTES!
15. DO NOT PLAGIARIZE! There are SEVERE penalties for plagiarism (i.e., copying directly or close to directly someone else's words and representing them as your own). Plagiarism is cheating. Cheating at the university is grounds for: receiving an F for the assignment, receiving an F in the course, and/or suspension or expulsion from the university. So do not use direct quotes and do not plagiarize; instead, respond in your own words. If there is any hint of plagiarism (including two students turning in substantially similar papers) you will receive an F in the course and will be reported to the Office of Judicial Affairs.

NOTE: I utilize 4 different plagiarism software programs, including 3 which search the net. Please familiarize yourself with the Policy on Academic Integrity (see below for the URL). Do not make me fail you...

16. We will be using Turnitin.com this semester. Begin by surfing to:  
<<http://www.turnitin.com>> and setting up a student account. You will need the **class ID#**, (5298794), as well as the **password** (Evolution). Please also take the plagiarism training which you can find at: <<http://tutorials.sjlibrary.org/tutorial/plagiarism/index.htm>>
17. Proof-read your paper. Points will be taken off for sloppy grammar, syntax and spelling. Especially if English is not your first language, it may be useful to have your paper proof read by a native English speaker who writes well, or at the Learning Center in Student Services.
18. Points will be taken off for not following instructions.
19. Points will be taken off for late papers that are unexcused; 1/2 of the points if turned in within 2 days of the due date. Any later will fail to earn points but will count towards the GE minimum.

## University Policies

### Academic integrity

Students should know that the University's Academic Integrity Policy is located at:  
<http://www.sjsu.edu/studentconduct/Policies/>

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 is available at:  
<<http://www.sjsu.edu/studentconduct/>>

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 <<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 1<sup>st</sup> floor of Clark Hall and on the 2<sup>nd</sup> 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. Please see: <<http://www.sjsu.edu/asc/>>

### **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/](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 http://www.sjsu.edu/writingcenter/about/staff/](http://www.sjsu.edu/writingcenter/about/staff/).

### **Peer Mentor Center**

The Peer Mentor Center is located on the 1<sup>st</sup> 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. Find all of the Academic Success Services at:  
<http://www.sjsu.edu/asc/services/>

## Anth 12(2): Introduction to Human Evolution, F'12 Course Schedule

The schedule below is subject to change with fair notice; any changes will be announced at the beginning of class. If you are late to class, it is your responsibility to find out if you missed any important announcements. Please see or contact the instructor.

Key to Readings:

**Ch/pp** = Chapter or pages in the Stanford, et al. **textbook**

**DFB** = Darwin For Beginners

**CGG** = Cartoon Guide to Genetics

**GE LO** = *General Education B2 Learning Objectives*

Week	Date	Topics, Readings, Assignments, Deadlines
1	W: 8/22	1) Introduction and course logistics
2	<b>M: 8/27</b>  W: 8/29	2) An introduction to Anthropology; <b>Ch. 1, pp. 403-418, DFB: 3-81</b> <b>In-class Writing Assignment #1 &amp; Survey #1: GE LO #1 &amp; #2)</b>  3) The nature of realities: The Scientific method vs. religious explanations; Ch. 2, DFB: 82-100
3	M: 9/3  W: 9/5	NO CLASS due to Labor Day: Honor Labor and look for the union label! <b>DROP DEADLINE: Tuesday, 9/4!</b>  4) Science as a way of knowing; <b>DFB: 101-137</b> Small group activity: hypothesis formulation ( <b>GE LO #1 &amp; #3</b> ) Remember to bring \$10 on Monday for the course reader sale!
4	<b>M: 9/10</b>  W: 9/12	<b>READER sold in class!</b> Read instructions for Paper #2, DUE 10/17! 5) A brief history of evolutionary thought: Darwin's reasoning (differential reproduction), Darwin & Wallace's theory (natural selection); <b>Ch. 2, DFB: 138-176, CGG: 1-36.</b> <b>ADD DEADLINE tomorrow, 9/11/12!</b>  6) Darwin's evidence: Beagles, tortoises, and finches; <b>Ch. 7 &amp; 9</b>
5	M: 9/17  <b>W: 9/19</b>	7) The Pliocene homind/hominin origin, or Look Ma, no hands! Genus <u>Australopithecus</u> , or I love Lucy; <b>Chs. 9-10</b>  8) More evidence: embryology, comparative approach, and vestigial structures; <b>Ch. 11.</b> <b>Take-home Quiz #1 (addresses GE LO's: # 1- #3, #4, #7, #9)</b>
6	<b>M: 9/24</b>	[ <b>Take-home Quiz #1 DUE at beginning of class!</b> ] 9) Fitness, natural selection, moths, tapeworms, the non-human primates and measures of species success; <b>Ch. 5</b>

	W: 9/26	10) Darwin's problems: To blend or not to blend; <b>CGG: 37-78</b>
7	M: 10/1  W: 10/3	11) Mendelian Genetics: Sex and the single gene; <b>Ch. 4</b> -- Review session for Midterm #1: (T, W, or R: Time TBA)  12) Mendelian Genetics, or What's an allele? <b>CGG: 79-96</b>
8	<b>M: 10/8</b>	13) <b>Midterm #1</b> (Have your T&E form 0200 filled out correctly: (addresses <b>GE LO's: # 1- #3, #4, #7, #9</b> )
8	W: 10/10	14) Mitosis and Meiosis; <b>CGG: 97-110</b>
9	M: 10/15  <b>W: 10/17</b>	15) Mendelian Genetics; Modes of Inheritance  <b>Paper #2 DUE (addresses GE LO: #1, #2, and #3)</b> 16) Mendel reconsidered: polymorphism, linkage, dosage & codominance
10	M: 10/22  <b>W: 10/24</b>	17) Intro to cell biology and a molecule called DNA; <b>Ch. 3</b>  18) DNA structure: Purines, Pyrimidines & nucleotides; <b>CGG: 104-128 (Take-home Quiz #2: addresses GE LO's: # 1 &amp; #3, #4-#9)</b>
11	M: 10/29  W: 10/31	[ <b>Take-home Quiz #2 DUE at beginning of class!</b> ] 19) DNA function: RNA's, protein synthesis, and gene products; <b>CGG: 129-163</b> [Poll class re: Midterm 2 Review]  20) Still more on DNA: What's really an allele? <b>pp. 410-411</b>
12	M: 11/5  <b>T: 11/6</b>  W: 11/7	21) Amplification, gene regulation, telomeres & Dolly the sheep; <b>CGG: 164-210.</b>  <b>ELECTION DAY! Be sure to vote! Prop. 30 &amp; the CSU!</b>  22) Evolution in human populations: Sickle Cell Anemia and Lactose "Intolerance", or Milk isn't good for everybody; <b>Ch. 6</b>
13	M: 11/12  <b>W: 11/14</b>	<b>NO CLASS: Veterans Day</b> [But study for Midterm #2 on Wednesday!]  23) ) <b>Midterm #2</b> (Have your T&E form 0200 filled out correctly: (addresses <b>GE LO's: # 1 - #9</b> )
14	M: 11/19	24) Natural Selection and the other forces of evolution: Genetic drift, fruitflies and cheetahs...; <b>Ch. 5</b>

	W: 11/21	25) Modern human “racial” variation in an evolutionary perspective. The transition to genus <u>Homo</u> and the spread of culture: H. ergaster and H. erectus, or, Out of Africa. Neandertals and the origin of modern humans; <b>Ch. 11- 13</b>
15	M: 11/26  W: 11/28	26) Modes of selection and the “Coolidge Effect”; <b>Ch. 7</b>  27) On the origin of species, or: Did you hear the one about the Chihuahua and the Great Dane? <b>Ch. 5</b> <b>(Take-home Quiz #3: addresses GE LO’s: # 1 - #9)</b>
16	M: 12/3  W: 12/5	<b>[Take-home Quiz #3 DUE at beginning of class!]</b> 28) Macroevolutionary principles, or Whence species? <b>Ch. 5</b>  29) The origin of life, terrestrial vertebrates and mammals; <b>Ch. 7</b>
17	M: 12/10  ***** <b>Rev.</b> ***** <b>Final Exam</b>	<b>OC Paper #3 (Quantitative Assignment) DUE!</b> 30) The origin, cladistics, ecology, and ethology of the primates. Macroevolution: adaptive radiation, extinction, convergence, homology, and tectonics; <b>Chs. 8-9. Survey #2 (addresses LO: 1-3)</b> ***** <b>Review Session for final exam</b> (Time TBA in Clark 204) ***** <b>Final Exam:</b> In our classroom from 12:15 to 2:30 pm. Remember to come to class with your scantron from filled out correctly! <b>LO # 1-9</b>