

(*NOTE: Links active on WebCT)

Page last modified: 1/11/05

Dr. Homer Montgomery mont@utdallas.edu Office: FN 3.308A	972.883.2480 TEL 469.951.8110 CELL	Office hours: Fall and Spring (T 8:30-9:30; W 8:30-11) Other times by appointment or just drop by my office. If in doubt about anything, contact me.
--	---------------------------------------	---

COURSE DESCRIPTION AND GOALS

Basis of Evolution provides wide-ranging discussions of the unifying theory of the origin and modification through time of all organisms. Pertinent history, the fossil record, evolution as concerns the human experience, processes and mechanisms, and a look at the future are major topics. We will engage in discussions of natural and sexual selection, paleontology, island biogeography, evolutionary psychology, and philosophy rather than discussions of genetics or cellular biology. Many topical, engaging, and controversial issues will be encountered. This course is specifically designed for non-majors. NATS 3330 is usually associated with a Humanities course and often with a trip (to Europe, Africa, Galapagos). Contact Dr. Montgomery for details.

NATS 3330 is a WebCT-assisted course. Active participation is required in order to make a top grade. Class meets on Tuesdays and Thursdays unless noted in the syllabus. Attendance in class is highly recommended. Questions are on WebCT and occur on Thursdays and cover information in the linked material on the syllabus as well as material discussed in class.

Students are encouraged to participate in field activities conducted during one weekend in Galveston. Those students who work or who cannot get away for the weekend will be offered an alternative project to be completed in lieu of the trip. Required field tips forms: www.utdallas.edu/dept/sci_ed/Homer/forms/forms.html

SYLLABUS

Class notes, readings from assigned books, and pertinent web sites for each week are linked below. You may need to look up some terminology in the notes ([Glossary of Terms](#)). There are several good web sources for this task. Google seems to be the best search engine for this. You might also want to augment the notes with online sites and post the URLs on the WebCT discussion board. Remember to stick with reputable sites such as those produced by museums, universities, and the like.

Free QuickTime download www.apple.com/quicktime/download

Free Adobe Acrobat Reader download www.adobe.com/products/acrobat/

Week of	Topic	Assigned Readings	
Jan 11	Charles Darwin and the H.M.S. Beagle Guest lecture on Thursday: Dr. Kathy Downey WebCT question(s) on Thursday available from six a.m. until midnight	BBC PBS Definition (follow the <i>Next Topic</i> links <i>A Few Points</i>)	
Jan 18	Geology, plate tectonics, fossil record WebCT question(s) on Thursday available from six a.m. until midnight	Evolution	Jones, Ch. 1-8
Jan 25	Natural selection Micro- and macroevolution, speciation Bugsville WebCT question(s) on Thursday available from six a.m. until midnight	Microevolution (follow the <i>Next Topic</i> links) Macroevolution (follow the <i>Next Topic</i> links) Speciation (follow the <i>Next Topic</i> links)	Jones, Ch. 9-12
Feb 1	Sexual selection WebCT question(s) on Thursday available from six a.m. until midnight	PBS Patterns PBS Hawaii (read article) Mechanisms (follow the <i>Next Topic</i> links) PBS PBS PBS	

		Dr. Tatiana review	
Feb 8	Patterns of evolution Form and function WebCT question(s) on Thursday available from six a.m. until midnight	Cladistics Patterns (follow the <i>Next Topic</i> links)	
Feb 15	Pace, Diversity, Complexity, Cooperation Feb 17 - No Class, Dr. Montgomery will be in Japan WebCT question(s) on Thursday available from six a.m. until midnight	Berkeley (follow links) Cooperation (work through these scenarios)	
Feb 22	Feb 22 - No class, Dr. Montgomery will be in Japan Evolution of Intelligence - Feb 24 WebCT question(s) on Thursday available from six a.m. until midnight	Intelligence (Quicktime Movie)	Dawkins, Ch. 1-6
	Field trip to Galveston (additional details will be provided in class)		
Mar 1	Nature of science, a universe without design WebCT Exam 1 on Thursday available from six a.m. until midnight		Dawkins, Ch. 9-10
Mar 8	Spring Break		
Mar 15	Island biogeography WebCT question(s) on Thursday available from six a.m. until midnight	Evolution Suitcase Berkeley Oxford Case and Cody BBC	
Mar 22	Red Queen WebCT question(s) on Thursday available from six a.m. until midnight		Ridley, Ch. 1-10
Mar 29	Primate evolution WebCT question(s) on Thursday available from six a.m. until midnight Optional (but highly recommended) paper copies of rough drafts of term paper due no later than 5 pm in my office		Sykes, Ch. 1-23
Apr 5	The "gay gene" and the "God gene" AIDS Rape WebCT question(s) on Thursday available from six a.m. until midnight	Game AIDS Why Men Rape	Jones, Introduction
Apr 12	Topics of your choice WebCT question(s) on Thursday available from six a.m. until midnight		
Apr 19	Presentations and discussions of term paper research WebCT Exam 2 on Thursday available from six a.m. until midnight		
Apr 25	All term papers due by midnight at: www.turnitin.com and on WebCT		

PREREQUISITES

None

BOOKS (required)

Dawkins, R., 1996, *The Blind Watchmaker*, Norton
 Jolly, A., 1999, *Lucy's Legacy, Sex and Intelligence in Human Evolution*, Harvard University Press
 Jones, S., 2000, *Darwin's Ghost*, Ballantine
 Ridley, M., 1993, *The Red Queen*, Penguin
 Sykes, B., 2001, *The Seven Daughters of Eve*, Norton

BOOKS

BROWSER UPDATES AND OTHER SOFTWARE

Your browser must be up to date to work properly with WebCT. Please be sure to upgrade if you are having difficulties. Check the software download site at UTD or upgrade directly.

Free QuickTime download www.apple.com/quicktime/download

Free Adobe Acrobat Reader download www.adobe.com/products/acrobat/

NOTES

There is certainly no need to print out the notes. You might consider downloading the notes to your computer.

You may need to look up some terminology in the notes. There are several good web sources. Google seems to be the best search engine for this. You might also want to augment the notes and book with online sites. Do stick with reputable URLs such as those produced by museums, universities, and the like. There are many.

QUIZZES and EXAMS

Question(s) are on WebCT each Thursday and are available from noon until midnight. All are open-book. Some of the questions are rather tricky and thought provoking.

Exam 1 and Exam 2 are also available on WebCT and are largely composed of a collection of questions similar to those you have seen each Thursday. Exams are comprehensive. No correct answer feedback will be provided on WebCT. Answers will be discussed in class.

TERM PAPER

Concept

In no way should a term paper be thought of a weighty tome of facts or descriptions. You must introduce a concept, show data, and offer logical interpretations.

Your paper must be on a subject from this course. You might want to choose some discovery in the science news. The science link at news.bbc.co.uk is a good source for ideas. Use the search window and you will get lots of the latest discoveries.

I would strongly advise running your ideas past me before launching into a misguided effort. Do not make the mistake of hurting your grade by choosing inappropriate topics. A paper arguing evolution (science) vs. creationism (theology) is not acceptable.

Get started with each paper as early as possible in the semester. I will certainly be happy to review your paper for you if you get it to me before the cutoff dates in the syllabus. My review does not take into account what TurnItIn may turn up as direct material from the web. Note the cutoff dates for review.

Present data first and interpretation after.

Use only the metric system.

Do not include any illustrations.

Format

Put these headings in your paper:

1. TITLE (do not include a title page)
2. INTRODUCTION (what is the purpose of your paper?, what is your hypothesis?, what are you going to tell us?)
3. Include a pertinent literature review
4. body of your paper with whatever SUBHEADINGS you choose
5. CONCLUSIONS (sum up succinctly, what did you tell us)
6. REFERENCES (see detailed instructions below)

Length of papers (use the Word Count utility)

The term paper must be between **3,000 and 5,000 words** (approximately 6 to 10 double-spaced pages in 12 pt Times)
You may incur a penalty for not falling in this range. A tip: more words frequently does not make the paper better.

The example papers are from a previous semester when number of pages was fixed rather than number of words.

Example of a paper with serious TurnItIn problems

Reference sources

I expect a minimum of 6 reputable sources. Only include those references that you actually cited. All sources should be reputable. Reputable means library journals (Science, Nature, National Geographic, Discover, Paleontology, etc.) or web sites put up by universities, museums, or respected media with entire science sections such as the BBC. Do not use newspapers. URLs for web sites should be complete to permit navigation to the actual page from which you drew your information. I am not concerned about the format of references as long as it is relatively standard and consistent. Cite passages in the text and include those references in your References Cited. Please number your references and simply put corresponding numbers in the text. A reference would then be: Birds clearly evolved from dromaeosaurids (3).

Cautions about TurnItIn results

Use only a couple of short quotes **at most**. Direct quotes must have quotation marks. Otherwise, paraphrase and reference the part you paraphrased. Direct quotes (properly cited) incur no penalty if they are kept under a threshold of 5% of your paper. Papers exceeding 5% direct quotes (as determined by TurnItIn) will likely incur a steep penalty. Papers with excessive non-original material (above 50%) that is not placed in quotes (plagiarism) will be reported for possible official disciplinary action.

Cautions about theology

This course is not designed to debate evolution vs. creationism (or "intelligent design"). That debate is more appropriately hosted in a theology course, not in a science course. Neither creationism nor intelligent design is science. Neither idea has been able to produce peer-reviewed research in the scientific literature.

Because this is a Natural Science course, your research should rely on widely accepted, scientific information. A failure to utilize clear scientific research material will only serve to weaken the strength of your argument as the topics of this course are based in scientific research.

While you are certainly entitled to your own belief system, your personal beliefs do not form the basis of this course. The study of science requires the use of scientific research, and scientific thinking.

Term paper grading rubric

1. Well presented thesis posing thoughtful scientific problem(s)
2. Evidence of understanding of the concepts and pertinent literature
3. Well-reasoned conclusions compatible with your arguments
4. Top marks will be earned for papers that both miss none of the important research and that also propose (even minor) philosophical and/or analytical innovations
5. Did you take a solid scientific position and defend that position well? (Make strong statements and defend them well.)
6. Possible deductions for paper length and certainly for TurnItIn problems

TurnItIn does not automatically grade your papers. I do this one at a time, a process that can take a few days. No paper will be returned to you. It remains in the reference archive at TurnItIn.com. Log in to the term paper section of WebCT and you can view my comments. You can also access your TurnItIn report at that site.

Due dates and procedures (rough drafts and final editions)

Rough drafts and term papers are due on the dates indicated in this Syllabus. No drafts or papers will be accepted after posted deadlines without talking to me in advance of the deadlines. A good reason will be necessary.

Rough drafts: must be given to me in class, left it in my office, or mailed to my office. I will edit your paper draft within a day or two and put it in the box outside my office (FN3.308A).

Final editions: The only way to receive credit for your paper is to follow the procedure below. Your paper must be uploaded to TurnItIn and to WebCT. TurnItIn and WebCT are programmed to stop accepting papers after the indicated day. Do not give me a hard copy of your edited papers. Do not e-mail me your paper.

Submitting your papers to TurnItIn and WebCT

Any paper not uploaded to TurnItIn and not uploaded by the cutoff will be considered as not turned in. No credit will be awarded.

Go to: www.turnitin.com

For class id enter:

For "Enrollment Password" enter: (case sensitive)

Course is GEOS 3332

Use your name for the title of your paper

Upload your paper

Now go to WebCT and upload your paper

I have no ability to make comments on your paper in TurnItIn. All comments will appear in WebCT. If you do not submit your paper to WebCT, you will not receive comments.

COURSE GRADE (500 possible points)

Quizzes: 120 points (mostly short answer with a few multiple choice)

Exam 1: 60 points

Exam 2: 140 points (comprehensive)

Term Paper: 180 points (submitted through TurnItIn and WebCT)

INCOMPLETES

I do not give incompletes without proof of major medical or similar serious problems. I will require an explanatory letter for my file.

STATEMENTS

In this course students will conform to the University rules for academic honesty. For further information see

<http://www.utdallas.edu/student/slife/dishonesty.html>

Information from this course can be provided to students with disabilities through University services. For more information see

<http://www.utdallas.edu/student/slife/hcsvc.html>