



The Sand Walk at Down House,
Charles Darwin's home near London

Syllabus

SCI 5322, Basis of Evolution

Dr. Homer Montgomery

PROFESSOR'S CONTACT INFORMATION

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Office: 972.883.2480
Office Location: Founders North 3.308A
Office Hours in person: W 0800-1700

PRE-REQUISITES, CO-REQUISITES, & OTHER RESTRICTIONS

None

COURSE DESCRIPTION & OBJECTIVES

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, natural and sexual selection, evolutionary psychology, and philosophy are prominent topics. Each class is designed as a student-centered encounter with the underpinnings of evolutionary theory. Students will produce weekly written assignments detailing various facets of evolutionary theory. Each will be based on their readings of primary research and research syntheses.

All students will become conversant with evolutionary theory. All will engage in probing discussions and activities on the discussion board. We will encounter numerous topical and controversial issues. The professor in this course functions primarily as a coach. As much as possible, the class will be driven by the students. Note the work of previous students in the form of various papers and Podcasts.

METHODOLOGY

A rather lot of reading, writing, and participation on the student's part is required. All projects will respect student's prior knowledge and perspectives. The professor in this course will function as a coach as much as possible.

ABSTRACTS

Concept

Abstracts are difficult to write. In essence, you must have thought through a short research paper before producing an abstract. Your writing must be seriously concise. Each word should be weighed for effectiveness. Always cite references. We will talk about writing in class.

Format

Each abstract will focus on current research dealing with the topic of that week. The length is 500 words (± 10 words) as determined by "Word Count" in MS Word. Highlight the body of your abstract. That is the important number. The count includes just the body of the text. Your name, the title, and references are not counted. Missing the word count will produce penalties. For assistance in writing effective abstracts please see: <http://research.berkeley.edu/ucday/abstract.html>

Procedure

You must submit each abstract before the weekly Friday deadline at 1700 hours to TurnItIn.com in order to have the assignment count. Grades will be posted in the Telecampus grade book.

Go to: www.turnitin.com

Follow the directions

Class ID: (provided by email)

Password: (provided by email)

You may check your own originality report once the TurnItIn review is completed with its process.

Clearly, your work must be original. We take this issue quite seriously. Happily, few students have difficulties. References can get included in your originality report. I take this into account and filter out that number.

MIDTERM'AND'FINAL'PAPER

Concept

Research papers will amplify topics discussed in this course.

Procedure

I expect approximately ten double-spaced pages as final product for both the midterm and final papers. I will make suggestions and edit your work. Due dates for outlines and rough drafts are in the syllabus

LEARNING'OUTCOMES'

Students will appreciate the work of Charles Darwin not only as inspired science but they will understand his work within historical and social perspectives. Students must read a great deal of Darwin's writings and then integrate this learning with the updated information presented by their professor.

Students will study and thoroughly consider the concepts of natural selection, sexual selection, speciation, evolutionary patterns. They will be able to credibly discuss evolution and the operant mechanisms.

Students will apply their learning and understanding to a real world research project that they conduct.

Students will focus on specific topics including island biogeography, evolution of intelligence and language, memes, origins of virtue, cooperation and competition, and topics presented in the Red Queen.

Students will demonstrate integration of their learning in this course.

REQUIRED TEXTS & MATERIALS**Required:**

Gibbons, 2005, *The First Human: The Race to Discover Our Earliest Ancestors*, Doubleday (the audiobook is good)
Jones, 2000, *Darwin's Ghost*, Random
Miller, 2000, *The Mating Mind*, Doubleday
Ridley, 1993, *The Red Queen*, Penguin

Optional:

Barrett, 2007, *Waistland: The Revolutionary Science Behind Our Weight and Fitness Crisis*, Norton
Blackmore, 1999, *Meme Machine*, Oxford
Brodie, 2004, *Virus of the Mind: The New Science of the Meme*, Integral
Carroll, 2006, *The Making of the Fittest*, Norton
Dawkins, 1976, *The Selfish Gene*, Oxford University Press
Dawkins, 1996, *The Blind Watchmaker: Why the Evidence of Evolution Reveals a Universe Without Design*, Norton
Kelly, 2005, *The Great Mortality: An Intimate History of the Black Death, the Most Devastating Plague of All Time*, HarperCollins
Kirschner and Gerhart, 2005, *The Plausibility of Life*, Yale
Miller, 2000, *Finding Darwin's God*, Harper
Ridley, M., 1996, *The Origins of Virtue*, Penguin
Roughgarden, 2005, *Evolution's Rainbow: Diversity, Gender, and Sexuality in Nature and People*, University of California
Roughgarden, 2006, *Evolution and Christian Faith*, Island
Thomson, 2005, *Before Darwin*, Yale
Wells, 2002, *Journey of Man: Genetic Odyssey*, Random
Whittaker, 1999, *Island Biogeography: Ecology, Evolution and Conservation*, Oxford
Wright, 1994, *The Moral Animal*, Vintage

Suggested Texts, Readings, & Materials Compiled in the folder for each week

ASSIGNMENTS & ACADEMIC CALENDAR

[Topics, Reading Assignments, Due Dates, Etc.]

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. There are several good Web sources for this task. You might also want to augment the notes with online sites and post the URLs on the discussion board. Remember to stick with reputable sites such as those produced by museums, universities, and the like.

Week of	Topic	Assignments	Reading (be careful of hyphenation of URLs)
Aug 18	Charles Darwin and his writings		http://darwin-online.org.uk/audio_darwin.html http://www.pbs.org/wgbh/evolution/library/02/index.html Darwin's Ghost
Aug 25	Evolution and history	Abstract	http://www.pbs.org/wgbh/evolution/library/03/index.html
Sep	Principles of	Abstract	http://www.pbs.org/wgbh/evolution/library/11/2/e_s_1.html

1, 8	evolutionary theory		http://www.pbs.org/wgbh/evolution/library/01/index.html http://wps.prenhall.com/esm_audesirk_bloe_7/0,8753,1140912-00.html http://www.pbs.org/wgbh/evolution/library/04/index.html
Sep 1	Midterm outline		Due on Sep 5 at 1700 as an email attachment to mont@utdallas.edu
Sep 15	Sexual selection	Abstract	The Mating Mind
Sep 22	Biogeography	Abstract	Island biogeography project http://en.wikibooks.org/wiki/Ecology/Island_biogeography
Sep 22	Midterm draft		Due on Sep 26 at 1700 on TurnItIn.com
Sep 29	Fossil record	Abstract	
Oct 6	Midterm paper		Due on Oct 10 at 1700 on TurnItIn.com
Oct 6, 13	Human evolution	Midterm Exam, Abstract	http://www.pbs.org/wgbh/evolution/library/07/index.html Gibbons
Oct 20	Evolution of human nature	Abstract	The Red Queen
Oct 27	Evolution of cooperation	Abstract	
Nov 3	Prisoner's dilemma	Abstract	
Nov 3	Final outline		Due on Sep 7 at 1700 as an email attachment to mont@utdallas.edu
Nov 10	Memes	Abstract	Paper by Montgomery and Skoog, 2007
Nov 17	Why evolution matters	Abstract	http://www.pbs.org/wgbh/evolution/library/10/index.html
Nov 17	Final draft		Due on Nov 21 at 1700 on TurnItIn.com
Nov 24	What about God?	Abstract	http://www.pbs.org/wgbh/evolution/library/08/index.html
Dec 8	Final paper		Due on Dec 12 at 1700 on TurnItIn.com

COURSE'POLICIES'

Grading (credit)

Abstracts: 50%

Midterm exam: 20% (comprehensive)

Final exam: 30%(comprehensive)

MAKE-UP'ASSIGNMENTS

None without prior approval of instructor

EXTRA CREDIT

None

LATE WORK

Accepted only with appropriate written excuse

SPECIAL ASSIGNMENTS

None

CLASSROOM CITIZENSHIP

Respect should be shown at all times.

STUDENT CONDUCT AND DISCIPLINE

The University of Texas System and The University of Texas at Dallas have rules and regulations for the orderly and efficient conduct of their business. It is the responsibility of each student and each student organization to be knowledgeable about the rules and regulations that govern student conduct and activities. General information on student conduct and discipline is contained in the UTD publication, A to Z. Guide, which is provided to all registered students each academic year.

The University of Texas at Dallas administers student discipline within the procedures of recognized and established due process. Procedures are defined and described in the Rules and Regulations, Board of Regents, The University of Texas System, Part 1, Chapter VI, Section 3, and in Title V, Rules on Student Services and Activities of the university's Handbook of Operating Procedures. Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and regulations (SU 1.602, 972/883-6391).

A student at the university neither loses the rights nor escapes the responsibilities of citizenship. He or she is expected to obey federal, state, and local laws as well as the Regents' Rules, university regulations, and administrative rules. Students are subject to discipline for violating the standards of conduct whether such conduct takes place on or off campus, or whether civil or criminal penalties are also imposed for such conduct.

ACADEMIC INTEGRITY

The faculty expects from its students a high level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, it is imperative that a student demonstrate a high standard of individual honor in his or her scholastic work.

Scholastic dishonesty includes, but is not limited to, statements, acts, or omissions related to applications for enrollment or the award of a degree, and/or the submission as one's own work or material that is not one's own. As a general rule, scholastic dishonesty involves one of the following acts: cheating, plagiarism, collusion, and/or falsifying academic records. Students suspected of academic dishonesty are subject to disciplinary proceedings.

Plagiarism, especially from the Web, from portions of papers for other classes, and from any other source is unacceptable and will be dealt with under the university's policy on plagiarism (see general catalog for details). This course will use the resources of turnitin.com, which searches the web for possible plagiarism and is over 90% effective.

EMAIL USE

The University of Texas at Dallas recognizes the value and efficiency of communication between faculty/staff and students through electronic mail. At the same time, email raises some issues concerning security and the identity of each individual in an email exchange. The university encourages all official

student email correspondence be sent only to a student's U.T. Dallas email address, and that faculty and staff consider email from students official only if it originates from a UTD student account. This allows the university to maintain a high degree of confidence in the identity of all individuals corresponding and the security of the transmitted information. UTD furnishes each student with a free email account that is to be used in all communication with university personnel. The Department of Information Resources at U.T. Dallas provides a method for students to have their U.T. Dallas mail forwarded to other accounts.

WITHDRAWAL 'FROM' CLASS'

The administration of this institution has set deadlines for withdrawal of any college-level courses. These dates and times are published in that semester's course catalog. Administration procedures must be followed. It is the student's responsibility to handle withdrawal requirements from any class. In other words, I cannot drop or withdraw any student. You must do the proper paperwork to ensure that you will not receive a final grade of F in a course if you choose not to attend the class once you are enrolled.

STUDENT 'GRIEVANCE' PROCEDURES'

Procedures for student grievances are found in Title V, Rules on Student Services and Activities, of the university's Handbook of Operating Procedures.

In attempting to resolve any student grievance regarding grades, evaluations, or other fulfillments of academic responsibility, it is the obligation of the student first to make a serious effort to resolve the matter with the instructor, supervisor, administrator, or committee with whom the grievance originates (hereafter called "the respondent"). Individual faculty members retain primary responsibility for assigning grades and evaluations. If the matter cannot be resolved at that level, the grievance must be submitted in writing to the respondent with a copy to the respondent's School Dean. If the matter is not resolved by the written response provided by the respondent, the student may submit a written appeal to the School Dean. If the grievance is not resolved by the School Dean's decision, the student may make a written appeal to the Dean of Graduate or Undergraduate Education, and the dean will appoint and convene an Academic Appeals Panel. The decision of the Academic Appeals Panel is final. The results of the academic-appeals process will be distributed to all involved parties.

Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and regulations.

INCOMPLETE 'GRADES'

As per university policy, incomplete grades will be granted only for work unavoidably missed at the semester's end and only if 70% of the course work has been completed. An incomplete grade must be resolved within eight (8) weeks from the first day of the subsequent long semester. If the required work to complete the course and to remove the incomplete grade is not submitted by the specified deadline, the incomplete grade is changed automatically to a grade of F.

DISABILITY 'SERVICES'

The goal of Disability Services is to provide students with disabilities educational opportunities equal to those of their non-disabled peers. Disability Services is located in room 1.610 in the Student Union. Office hours are Monday and Thursday, 8:30 a.m. to 6:30 p.m.; Tuesday and Wednesday, 8:30 a.m. to 7:30 p.m.; and Friday, 8:30 a.m. to 5:30 p.m.

The contact information for the Office of Disability Services is:
The University of Texas at Dallas, SU 22
PO Box 830688
Richardson, Texas 75083-0688
(972) 883-2098 (voice or TTY)

Essentially, the law requires that colleges and universities make those reasonable adjustments necessary

to eliminate discrimination on the basis of disability. For example, it may be necessary to remove classroom prohibitions against tape recorders or animals (in the case of dog guides) for students who are blind. Occasionally an assignment requirement may be substituted (for example, a research paper versus an oral presentation for a student who is hearing impaired). Classes enrolling students with mobility impairments may have to be rescheduled in accessible facilities. The college or university may need to provide special services such as registration, note-taking, or mobility assistance.

It is the student's responsibility to notify his or her professors of the need for such an accommodation. Disability Services provides students with letters to present to faculty members to verify that the student has a disability and needs accommodations. Individuals requiring special accommodation should contact the professor after class or during office hours.

RELIGIOUS'HOLY'DAYS'

The University of Texas at Dallas will excuse a student from class or other required activities for the travel to and observance of a religious holy day for a religion whose places of worship are exempt from property tax under Section 11.20, Tax Code, Texas Code Annotated.

The student is encouraged to notify the instructor or activity sponsor as soon as possible regarding the absence, preferably in advance of the assignment. The student, so excused, will be allowed to take the exam or complete the assignment within a reasonable time after the absence: a period equal to the length of the absence, up to a maximum of one week. A student who notifies the instructor and completes any missed exam or assignment may not be penalized for the absence. A student who fails to complete the exam or assignment within the prescribed period may receive a failing grade for that exam or assignment. If a student or an instructor disagrees about the nature of the absence [i.e., for the purpose of observing a religious holy day] or if there is similar disagreement about whether the student has been given a reasonable time to complete any missed assignments or examinations, either the student or the instructor may request a ruling from the chief executive officer of the institution, or his or her designee. The chief executive officer or designee must take into account the legislative intent of TEC 51.911(b), and the student and instructor will abide by the decision of the chief executive officer or designee.

Off-campus instruction and course activities that are off-campus, out-of-state, or foreign are all subject to state law and University policies and procedures regarding travel and risk-related activities. Information regarding these rules and regulations may be found at http://www.utdallas.edu/BusinessAffairs/Travel_Risk_Activities.htm. Additional information is available from the office of the school dean.

These descriptions and timelines are subject to change at the discretion of the professor.