



Down House - Charles Darwin's home
near London

Photos by HM



Syllabus

SCI 5322

Basis of Evolution

PROFESSOR CONTACT INFORMATION

Dr. Homer Montgomery

Office 972.883.2480 (not regularly answered)

Office Location FN 3.308H

Email mont@utdallas.edu
[Faculty web page](#)

Office Hours by appointment

Other Information Please get in touch whenever you have questions

COURSE INFORMATION

Pre-requisites, Co-requisites

None

Course Description

- *Basis of Evolution* provides wide-ranging discussions of the unifying theory of the origin and modification through time of all organisms.
- Each week is designed as a student-centered encounter with evolutionary theory. We will consider numerous topical issues.
- Students will engage in probing discussions and weekly writing activities requiring research.
- Each student will complete an original classroom lesson.

Methodology

- You should be prepared for each week by carefully reviewing the assigned reading.
- You will regularly need to conduct research.
- Each student has a responsibility to fully participate during the entire week.
- Weekly writing assignments will be carefully graded. Your work must be highly polished. If you would like a review of your draft, please send Dr. Montgomery an email with your draft attached. Please do not wait until the last minute to do this.

Preparing for each week

- Review the appropriate chapter in Richard Dawkins, *The Greatest Show on Earth: The Evidence for Evolution*

- Conduct additional research. Other interesting resources are easily accessed – Radiolab, etc.
- Your professor has numerous books in his library that you may borrow.
- Start your work early each week. Waiting until the end of the week to post discussions and complete your writing assignments is simply not a successful strategy.

LEARNING OUTCOMES AND ASSESSMENTS

Students will...

1. analyze the work of Charles Darwin and other workers not only as inspired science, but they will appreciate the importance of this work within historical and social perspectives.
Assessed via weekly discussions and written assignments
2. investigate the mechanisms of evolution.
Assessed via written assignments
3. interpret evolution from the viewpoints of paleontology, molecular biology, population genetics, and biogeography.
Assessed via written assignments
4. encounter common misconceptions about evolutionary theory
Assessed via weekly discussions
5. create a classroom lesson.
Assessed via a detailed write-up

COURSE POLICIES

Graded work in this course

1. Discussion topics are your choice, but your focus must be related to the topics of the week (assigned chapters). Begin each week's discussions on Monday or Tuesday. Quantity will not substitute for quality. Discussion forums for each week time out on Sundays at midnight. The grading rubric is as follows:

Rubric for questions you post. (1 point)

- a. Relevance – must consider a major issue in the chapters of study for that week (1 point)
- b. Timely – must be posted early each week (1 point)
- c. Thought-provoking – must require higher level thought, ≥ 4 on Bloom's Taxonomy (3 points)

([http://www.bloomstaxonomy.org/Blooms Taxonomy questions.pdf](http://www.bloomstaxonomy.org/Blooms%20Taxonomy%20questions.pdf))

Rubric for responses you post. (2 points)

- a. Is the response correct?
- b. Is the response thorough?
- c. Is the response focused - to the point?
- d. Is the response well written?
- e. Is the response original?

Regular and thoughtful participation is required. Your instructor keeps up with the forum, and regularly jumps into the fray.

It is not uncommon for this class to post hundreds of messages, and to suggest as many a few hundred sources. Overachievers aside, a minimum of five well-considered posts are expected each week. Posts that appear only at the end of the week will not be considered for full credit, or even for any credit.

*Please restrict social and off-topic discussions to the ungraded forum.

2. **Written assignments:** 3 points. Even though it is possible that you worked with your peers during the week, your writing assignment must be your work, not a group's work. Each must be an individual, unique product.

The weekly written assignment process is as follows:

- Read the assigned chapters.
- Write a well-considered, researched, scientifically accurate, and thoroughly edited piece of 400 - 500 words that displays your deep understanding of the topics at hand.

Each written assignment will be graded with the following concepts in mind:

- Well-focused on the chapter of the week. The specific topic is your choice.
- Offers logical and creative assessments and, perhaps, novel ideas.
- Important ideas and viewpoints are supported with accurate and detailed references to text and to other sources (reference format is your choice). How to cite an ebook: <http://booksprung.com/how-to-cite-a-kindle-ebook>

Be informed, and be persuasive. Edit and edit again. Do your best work.

No points will be awarded for:

- cursory work
- work that is not between 450 and 500 words (counting only text, not references)
- statements without citations about ideas or concepts that are not common knowledge
- work that is pasted in from another source (including direct quotes)
- diversions from accepted scientific fact and theory

All written assignments time in at noon on the beginning of each week and time out at midnight on Sunday. Please keep this in mind.

3. Original lesson: 16 points

- must be accurate in all details
- must be practical, useful, etc.
- should be designed for one class period
- should have a hands-on component

Required Book

Richard Dawkins, *The Greatest Show on Earth: The Evidence for Evolution* (Kindle, Audio, or Paper versions are available)

Class Participation

Mandatory regular online presence

Grades

Grading is based on 100 possible points with an A being $\geq 93\%$, A- is 90-92%, B+ is 88-89%, B is 83-87%, etc.)

CALENDAR & ASSIGNMENTS

(Topics, Reading Assignments, Due Dates, etc.) Class topics, readings, pertinent links and assignments for each week are below. You may need to look up terminology. There are several good sources for this task.

Week of	Project	Research for class (books may be borrowed from your professor's library)
Aug 22	Introduction	New normal? Howling Babies Drove Prehistoric Warriors Into Battle
Aug 29	Only a theory?	Dawkins: Chapter 1
Sep 5	Dogs, cows and cabbages	Dawkins: Chapter 2
Sep 12	The primrose path to macro-evolution	Dawkins: Chapter 3
Sep 19	Silence and slow time	Dawkins: Chapter 4
Sep 26	Before our very eyes	Dawkins: Chapter 5
Oct 3	Missing link? What do you mean, "missing"?	Dawkins: Chapter 6
Oct 10	Missing persons? Missing no longer.	Dawkins: Chapter 7
Oct 17	You did it yourself in nine months	Dawkins: Chapter 8
Oct 24	The ark of the continents	Dawkins: Chapter 9
Oct 31	The tree of cousinship	Dawkins: Chapter 10
Nov 7	History written all over us	Dawkins: Chapter 11
Nov 14	Arms races and "Evolutionary Theodicy"	Dawkins: Chapter 12
Nov 21	N o c l a s s e s	
Nov 28	There is grandeur in this view of life	Dawkins: Chapter 13
Dec 5	Original lessons due	

THE FINE PRINT

UT DALLAS PRACTICING TEACHER COMPLIANCE POLICIES

As a student in this course, you are expected to comply with Texas Administrative Code (TAC), Title 19, Part 7, Chapter 247, Rule §247.2 – Code of Ethics and Standard Practices for Texas Educators and the UT Dallas Fitness to Teach Policy.

http://info.sos.state.tx.us/pls/pub/readtacSext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=19&pt=7&ch=247&rl=2

SHARING CONFIDENTIAL INFORMATION

Students considering sharing personal information in email, in person, or within assignments or exams should be aware that faculty members and teaching/research assistants are required by UT Dallas policy to report information about sexual misconduct to the UT Dallas Title IX Coordinator. Per university policy, faculty have been informed that they must identify the student to the UT Dallas Title IX Coordinator. Students who wish to have confidential discussions of incidents related to sexual harassment or sexual misconduct should contact the Student Counseling Center (972-883-2527 or after hours 972-UTD-TALK or 972-883-8255), the Women's Center (972-883-8255), a health care provider in the Student Health Center (972-883-2747), the clergy person (or other legally recognized religious advisor) of their choice, or an off-campus resource (i.e., rape crisis center, doctor, psychologist). Students who are sexually assaulted, harassed, or victims of sexual misconduct, domestic violence, or stalking, are encouraged to directly report these incidents to the UT Dallas Police Department at 972-883-2222 or to the Title IX Coordinator at 972-883-2218. Additional information and resources may be found at <http://www.utdallas.edu/oiec/title-ix/resources>.

TECHNICAL SUPPORT

If you experience any issues with your UT Dallas account, contact the UT Dallas Office of Information Technology Help Desk: assist@utdallas.edu or call 972-883-2911. UT Dallas provides eLearning technical support 24 hours a day/7 days a week. The services include a toll free telephone number for immediate assistance (1-866-588-3192), email request service, and an online chat service. Please use this link to access the UTD eLearning Helpdesk: <http://www.utdallas.edu/elearning/eLearningHelpdesk.html>.

FIELD TRIP POLICIES, OFF-CAMPUS INSTRUCTION AND COURSE ACTIVITIES. Off-campus, out-of-state, foreign instruction/travel, and course-related field trip activities are subject to state law and University policies and procedures regarding travel and risk-related activities. Detailed information regarding this policy, in accordance to *Texas Education Code*, Section 51.950, can be accessed at the UT Dallas Policy Navigator, <http://policy.utdallas.edu/utdbp3023>, and at <http://www.utdallas.edu/administration/insurance/travel>. Additional information is available from the office of the school dean.

STUDENT CONDUCT AND DISCIPLINE

The University of Texas System (Regents' Rule 50101) 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 which govern student conduct and activities. General information on student conduct and discipline is contained in the UT Dallas online catalogs (<http://catalog.utdallas.edu>).

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 Student Code of Conduct, UTDSP5003 (<http://policy.utdallas.edu/utdsp5003>). Copies of these rules and regulations are available to students in the Office of Community Standards and Conduct, where staff members are available to assist students in interpreting the rules and regulations (SSB 4.400, 972-883-6391) and online at <https://www.utdallas.edu/conduct/>.

A student at the University neither loses their 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 its 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 demonstrates a high standard of individual honor in his or her scholastic work.

ACADEMIC DISHONESTY

Academic dishonesty can occur in relation to any type of work submitted for academic credit or as a requirement for a class. It can include individual work or a group project. Academic dishonesty includes plagiarism, cheating, fabrication, and collaboration/collusion. In order to avoid academic dishonesty, it is important for students to fully understand the expectations of their professors. This is best accomplished through asking clarifying questions if an individual does not completely understand the requirements of an assignment.

Additional information related to academic dishonesty and tips on how to avoid dishonesty may be found here: <https://www.utdallas.edu/conduct/dishonesty/>.

COPYRIGHT NOTICE

It is the policy of the University of Texas at Dallas to adhere to the requirements of the United States Copyright Law of 1976, as amended, (*Title 17, United States Code*), including ensuring that the restrictions that apply to the reproduction of software are adhered to and that the bounds of copying permissible under the fair use doctrine are not exceeded. Copying, displaying, reproducing, or distributing copyrighted material may infringe upon the copyright owner's rights. Unauthorized distribution of copyrighted material, including unauthorized peer-to-peer file sharing,

may subject students to appropriate disciplinary action as well as civil and criminal penalties. Usage of such material is only appropriate when that usage constitutes "fair use" under the Copyright Act. For more information about the fair use exemption, see <http://copyright.lib.utexas.edu/copypol2.html>. As a UT Dallas student, you are required to follow UT Dallas' copyright policy (UTDPP1043 at <http://policy.utdallas.edu/utdpp1043>) and the UT System's policy, UTS107 at <http://www.utsystem.edu/board-of-regents/policy-library/policies/uts107-use-copyrighted-materials>.

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. All official student email correspondence will be sent only to a student's UT Dallas email address and UT Dallas will only consider email requests originating from an official UT Dallas student email account. This allows the University to maintain a high degree of confidence in the identity of each individual's corresponding via email and the security of the transmitted information. The University of Texas at Dallas furnishes each student with a free email account that is to be used in all communication with university personnel. The Office of Information Technology provides a method for students to have their UT Dallas mail forwarded to other email accounts. To activate a student UT Dallas computer account and forward email to another account, go to <http://netid.utdallas.edu>.

CLASS ATTENDANCE

Regular and punctual class attendance is expected. Students who fail to attend class regularly are inviting scholastic difficulty. Absences may lower a student's grade where class attendance and class participation are deemed essential by the instructor. In some courses, instructors may have special attendance requirements; these should be made known to students during the first week of classes.

WITHDRAWAL FROM CLASS

The administration at UT Dallas has established deadlines for withdrawal from any course. These dates and times are published in the Comet Calendar (<http://www.utdallas.edu/calendar>) and in the Academic Calendar <http://www.utdallas.edu/academiccalendar>). It is the student's responsibility to handle withdrawal requirements from any class. In other words, a professor or other instructor cannot drop or withdraw any student unless there is an administrative drop such as the following:

Have not met the prerequisites for a specific course

Have not satisfied the academic probationary requirements resulting in suspension

Office of Community Standards and Conduct request

Have not made appropriate tuition and fee payments

Enrollment is in violation of academic policy

Was not admitted for the term in which they registered

It is the student's responsibility to complete and submit the appropriate forms to the Registrar's Office and ensure that he or she will not receive a final grade of "F" in a course if he or she chooses not to attend the class after being enrolled.

STUDENT GRIEVANCE PROCEDURES

Procedures for student grievances are found in university policy UTDSP5005 (<http://policy.utdallas.edu/utdsp5005>). In attempting to resolve any student grievance regarding disputes over grades, application of degree plan, graduation/degree program requirements, and thesis/and dissertation committee, adviser actions and/or decisions, evaluations, and/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 originated.

INCOMPLETE GRADE POLICY

As per university policy, incomplete grades may be given, at the discretion of the instructor of record for a course, when a student has completed at least 70% of the required course material but cannot complete all requirements by the end of the semester. An incomplete course grade (grade of 'I') must be completed within the time period specified by the instructor, not to exceed eight (8) weeks from the first day of the subsequent long semester. Upon completion of the required work, the symbol 'I' may be converted into a letter grade (A through F). If the grade of Incomplete is not removed by the end of the specified period, it will automatically be changed to F.

ACCESSABILITY SERVICES

It is the policy and practice of The University of Texas at Dallas to make reasonable accommodations for students with properly documented disabilities. However, written notification from the Office of Student AccessAbility (OSA) is required. If you are eligible to receive an accommodation and would like to request it for this course, please discuss it with your professor and allow one week advance notice. Students who have questions about receiving accommodations, or those who have, or think they may have, a disability (mobility, sensory, health, psychological, learning, etc.) are invited to contact OSA for a confidential discussion. OSA is located in the Student Services Building, SSB 3.200. They can be reached by phone at 972-883-2098, or by email at studentaccess@utdallas.edu.

RELIGIOUS HOLY DAYS

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

Students are encouraged to notify the instructor or activity sponsor as soon as possible regarding the absence, preferably in advance of the assignment.

Excused students will be allowed to take missed exams or complete assignments 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 President of UT Dallas or from the President's designee. The chief executive officer or designee must take into account the legislative intent of *Texas Education Code* 51.911(b), and the student and instructor will abide by the decision of the chief executive officer or designee.