

BIO/PHL 460
Philosophy of Biology
3 Credit Hours
Spring, 2008

Tuesday 2:00-4:50 p.m.	Lee Drain Building—Room 215
Glenn M. Sanford 401 Academic Building 4 (936) 294-1510 sanford@shsu.edu Fax: (936) 294-3978 Departmental: (936) 294-1174	Office Hours: Tuesday 11:00-12:00 and 1:00-2:00 Thursday 11:00-12:00 and by appointment

Catalog Description: BIO/PHL 460 PHILOSOPHY OF BIOLOGY. A seminar course investigating philosophical questions concerning the development and application of evolutionary theory. This course addresses issues relating to concepts such as adaptation, speciation, the comparative method, levels of selection, and phylogenetic reconstruction. Credit 3.

Course Format: This course will be primarily taught in a seminar format. Students are expected to participate in regular discussions of the issue raised throughout the semester.

Objectives: The primary objective of this course is to help students transition from thinking about biology as a collection of “facts” and encourage them to examine the philosophical underpinnings of the theories and methods that drive biological research. Following a brief introduction to the history of evolutionary thinking and the creation/evolution debates, the course will dedicate significant effort to investigating the issues surrounding phylogenetic reconstruction. The final portion of the course will press students to apply what we have learned to their own research.

Required Texts:

The Comparative Method in Evolutionary Biology, Paul H. Harvey and Mark D. Pagel, Oxford University Press (1991) ISBN# 0198546408

Functions: New Essays in Philosophy of Psychology and Biology, Andre’ Ariew, Robert Cummins, and Mark Perlman, Oxford University Press (2002) ISBN# 0199255814.

Additional web-based readings will be supplied to supplement the text. These readings will be available at no charge to the students.

Supplies: Beyond printing web-based readings, there are no supplies required for the course.

Attendance Policy: **Attendance records will not be used in determining your grade.** Attendance will be taken using sign-in sheets. Class attendance is strongly encouraged as all students are responsible for any material covered or assignments given in class even if it does not appear in the texts or on the website. For exams,

For take-home exams and research papers, I will deduct 10 points from your exam grade for each 12-hour period, or part thereof, from the time that the exam was due until I receive the exam. **The only exception to the above is an absence for a religious holy day covered under the policy on religious holy days. When you submit a take-home exam or research paper, it is your responsibility to ensure that the exam is in Adobe PDF format.** Exams submitted in any other format will receive a grade of zero points, unless an acceptable version is submitted. If you submit an exam in an unapproved format prior to the deadline, but I do not receive the appropriate electronic format or a hard copy until after the deadline, I will deduct points according to the late exam policy.

STUDENT ABSENCES ON RELIGIOUS HOLY DAYS:

Section 51.911(b) of the Texas Education Code requires that an institution of higher education excuse a student from attending classes or other required activities, including examinations, for the observance of a religious holy day,

including travel for that purpose. Section 51.911(a)(2) defines religious holy days as: "a holy day observed by a religion whose places of worship are exempt from property taxation under Section 11.20, Tax Code...."

A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence.

University policy 861001 provides the procedures to be followed by the student and instructor. A student desiring to absent himself/herself from a scheduled class in order to observe (a) religious holy day(s) shall present to each instructor involved a written statement concerning the religious holy day(s). The instructor will notify the student of a reasonable timeframe in which the missed assignments and/or examinations are to be completed.

Assignments:

Readings: Reading assignments will be posted on Blackboard as the course progresses. All readings, other than those available on the first day will be posted at least two weeks in advance. All students are expected to have read all assignments before attending the class on the day for which they are assigned. Please note that some readings may be difficult to comprehend. It is very important that you read all assignments before coming to class. If there are specific portions you do not understand, you are expected to notify me of this at the start of each class. I welcome questions as a basis for the day's discussion.

In-class Writing Assignments: I reserve the right to give unannounced in-class writing assignments at any point during the semester. Each assignment will be worth 10 points. These will only be given if classroom discussion lags. It is possible that we will go through the entire semester with no in-class writing assignments. These assignments will require students to demonstrate a grasp of the readings assigned for that class meeting. They will consist of one or more short essay questions. Answers will be graded based upon each student's ability to clearly and concisely explain the required concepts. There are no make-ups on quizzes, except in the case of a religious holiday.

Exams: These will either take-homes. They will consist of 2-3 essay questions. I will expect 4-6 paragraphs for each essay question. These numbers will all be specified in advance of a particular exam and will vary with the nature of the exam. Students are expected to demonstrate a grasp of the material covered while providing their own analysis of the relevant content for each question. These answers will be graded on content, clarity, specificity, and directness. These will be announced at least 2 weeks in advance. All answers should utilize correct spelling and grammar.

Research Paper: Undergraduates will be required to submit a 10-page research paper on a topic chosen in consultation with me. For graduate students, the paper requirement will be 15 pages. All students are required to submit a paper topic to me no later than February 25, 2008. Anyone failing to receive approval for a topic prior to 2/25/08 will have 10 points deducted from the final paper grade. Once the topic is approved, students are expected to conduct significant original research. Any student wishing to submit a draft of the paper for comments may do so up to April 22, 2008. If a draft comes in after 4/22/08, I will attempt to provide comments, but I make no guarantees. The papers are due at 2:00 p.m. on May 6, 2008. All papers must be typed, double-spaced, in a standard 12-point font, with 1-inch margins on all sides. You must submit the paper via Blackboard and Turnitin.com. Note that the 10-page length does not count things such as title page (not required), table of contents (should not be included), or bibliography (must be included). You may present the paper using any reference style you choose, so long as it is consistent throughout the paper and provides full bibliographic information to appropriately reference the research you have done. I expect to use Turnitin.com to check for plagiarism. Any student who plagiarizes will receive a zero on the paper and be referred to the appropriate university officials for disciplinary action up to and including expulsion from the university. All students are encouraged to make use of the Writing Center located in Farrington Bldg. Room 111. They can be reached at (936) 294-3680 or wctr@shsu.edu.

Scheduling Note: I do not post a master schedule for the entire class because the schedule is subject to change depending upon the pace at which we get through materials given the possible inclusion of current events and/or student research examples to illustrate issues in philosophy of biology. If you have questions or need further information in order to plan your schedule, feel free to ask me. I will provide you with as much detail as possible.

Grading Plan: Grades for this course will be determined based upon your percentage of total points using the following scale: 90-100% = A, 80-89.99% = B, 70-79.99% = C, 60-69.99% = D, and below 60% = F. Not counting any in-class writing assignments that may occur, there will be 300 total points in this course (200 from exams and 100 from the research paper). Prior to the addition of in-class writing assignments, the points scale will be 270-300=A, 240-269=B, 210-239=C, 180-209=D, and 0-179=F. I do not expect to offer any extra credit during this course; however, on occasion, I have provided students the opportunity to earn extra credit points for participating in university-sponsored research projects. If any such opportunity arises, I will announce it in class. You must be present on the day the assignment is announced to earn the points—attendance is important.

Study Tips: All students are encouraged to attend every scheduled class meeting. Successful students will focus their efforts on developing conceptual understanding. Because we will be focusing our efforts on understanding the challenges faced by biologists, memorization is not a good strategy for the course. Students are encouraged to make use of the SAM Center, the Reading Center, and the Writing Center.

University policies concerning **academic dishonesty, Americans with Disabilities Act, religious holidays, and visitors to the classroom** are available at <https://www.shsu.edu/syllabus/>

For any student caught violating the policy on academic dishonesty, I will enter a grade of 0 for the given assignment and work with the appropriate university authorities to seek the expulsion of the student. In all cases, I will seek the maximum penalty allowed by the university.

Instructor Evaluations: Near the end of the semester, all students will be asked to complete an IDEA evaluation of the instructor's performance in this class. This confidential evaluation is your chance to provide feedback on the effectiveness of this course.

Americans with Disabilities Act:

It is the policy of Sam Houston State University that individuals otherwise qualified shall not be excluded, solely by reason of their disability, from participation in any academic program of the university. Further, they shall not be denied the benefits of these programs nor shall they be subjected to discrimination. Students with disabilities that might affect their academic performance are expected to visit with the Office of Services for Students with Disabilities located in the Counseling Center. They should then make arrangements with their individual instructors so that appropriate strategies can be considered and helpful procedures can be developed to ensure that participation and achievement opportunities are not impaired.

SHSU adheres to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations for students with disabilities. If the student has a disability that may affect adversely their work in this class, then he or she needs to register with the SHSU Counseling Center and to talk with the instructor about how they can best be helped. All disclosures of disabilities will be kept strictly confidential. NOTE: no accommodation can be made until the student registers with the Counseling Center. There will be no retroactive accommodations.

Academic Dishonesty:

In accordance with the University's Academic Policy Statement 810213, the following statement applies to all students in my classes:

All students are expected to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain complete honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. The University and its official representatives may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including, but not limited to, cheating on an examination or other academic work which is to be submitted, plagiarism, collusion, and the abuse of resource materials.

Classroom Rules of Conduct:

Students are expected to assist in maintaining a classroom environment that is conducive to learning. Students therefore must refrain from behavior in the classroom that intentionally or unintentionally disrupts the learning process and, thus, impedes the mission of the university. Cellular phones, pagers, and music players (for example,

iPod-type devices) must be turned off and earphones removed before class begins. Students are prohibited from using tobacco products, making offensive remarks, reading newspapers, talking at inappropriate times, or engaging in any other form of distraction. Inappropriate behavior in the classroom shall result in a directive to leave class. Students who are especially disruptive also may be reported to the Dean of Students for disciplinary action in accordance with university policy. Violation of these rules may result in the student being counted as absent for the class in which the behavior occurs.

The SHSU policy on student conduct and discipline is available at:

<https://www.shsu.edu/students/guide/dean/codeofconduct.html>

Visitors in the Classroom:

Unannounced visitors to class must present a current, official SHSU identification card to be permitted in the classroom. They must not present a disruption to the class by their attendance. If the visitor is not a registered student, it is at the instructor's discretion whether or not he/she will be allowed to remain.

Course Outline:

There is no master course outline. After the initial list of assignments, all assignments will be posted on BlackBoard at least two weeks before they are due. This allows for flexibility to alter the pace of the course relative to the needs of students.