Course # and Title: BIOL 4370, History and Philosophy of Biology (CRN 17050)
Credit Hours: 3 credit hours upper division
Term: Fall, 2014

Course Meetings and Location: TR 4:30-5:50 PM, LART 202
Prerequisite Course: BIOL 1306-1108 [or equivalent]

N.B.: Student enrollees are warned that, despite these modest prerequisites, this offering is a biology course at the senior level!

Instructor: Dr. Carl S. Lieb
Office Location: Old Biology” Building B-204
Contact Information:
Office telephone: 747-6987  email: clieb@utep.edu
Warning: The office telephone is the most reliable means for time-sensitive communication. If you insist on using email, and do not receive a reply within a few days, send it again (… and again).

Office Hours: MW 10:35-11:35 AM; W: 4:00-5:00 PM; R: 11:30 AM – 12:20 PM, and by appointment (see contact info, above).

Textbook: There is no textbook. It is highly recommended, however, that each student have available to them a modern introductory biology textbook for emergency use when “holes” in their scholarly background in biological sciences are manifested. The longer it has been since the student completed BIOL 1306-1108 (and its own prerequisite, BIOL 1305-1107), the more necessary such a reference will be to avoid reaching a biological content event horizon.

Course Objectives (Learning Outcomes): From taking this course, the student should come away with 1) a knowledge of the historical development of biological concepts in four major conceptual areas: Genetics, Evolution, Ecology, and Physiology/Medicine, 2) an understanding of why biological science has a unique philosophical and epistemological foundations when compared with the physical sciences, and 3) an appreciation of the polyglot nature of academic biology and the philosophical challenges this discipline has faced in the past and faces in the future.

Course Activities/Assignments: This edition of BIOL 4370 is a lecture class. However, a written term, paper will be required, the final complete draft of which must be turned in no later than 4:30 PM on the 11th of November, and a final revised version (which must be accompanied by the draft version) is due at 5PM on Friday, 5 December (“Dead Day”).

Assessment of Learning: Three examinations will be given of the course approximately five weeks apart (30 September, 4 November, 9 December) in the classroom where the lectures are inflicted (LART 202). The examination on 9 December will start at 4PM (a time slot for the Final Examination); the others will begin promptly at 4:30 PM.
Grading Policy: The examinations will be given on the following dates, and will contribute proportionately to the final grade as follows:

- Examination I (30 September, 4:30 PM): 25%
- Examination II (4 November, 4:30 PM): 25%
- Examination III (9 December, 4 PM): 25%

The balance of the grade will come from: Complete draft of term paper (10%), final version of term paper (5%), and Attendance (10%, including random checks, see Attendance Policy, below).

There is NO “extra credit” in this course, please do not ask for the latter.

Examination No-show Policy: Failure to take Exam I (and square it in prompt fashion with Dr. Lieb; see “no show” policy below) may result in the student being summarily dropped from the class roll.

A missed examination contributes zero percent toward the student’s final course grade, and thus represents a serious perturbation in his/her class progress and a catastrophe for grade expectations. These problems must be handled on a case-by-case basis at the discretion of Dr. Lieb, who insists that the following two rules be observed: 1) If a student must miss an examination because of illness, death in the family, University-sponsored event, or other reasonably legitimate reason, he or she must contact Dr. Lieb by telephone (not email! @ 747-6987), either BEFORE the test or WITHIN 48 HOURS following the time of the start of the examination and BEFORE the next class period [for examinations I and II]; and 2) subsequently, the student will have one week to personally discuss the situation with Dr. Lieb and arrange an immediate disposition of the case.

Drop Policy: The student drop date is 31 October 2014. The results of the first lecture examination will be known by that time, and students are thus expected to act wisely in their own interest. The instructor will NOT drop a student who has taken any examination, committed to a term paper subject, or has been recorded as coming to class even once; withdrawal action must be taken by the student’s own initiative by this 31 October deadline. After 31 October, a student may drop the course with a “W” only by written petition to the Dean of Science through Dr. Lieb. Students who find themselves in academic trouble during the semester should promptly consult with the instructor so that their options can be explored (that is, don’t wait until the end of the semester to relate a tale of woe).

Attendance Policy: Attendance at every class meeting by every student is expected.

Attendance will be checked randomly during the semester, and being “caught” AWOL (Absent Without Leave, that is, an unexcused absence) will lose 2% of their attendance component of their final grade for each detected absence until that 10% is lost completely.

More importantly, in attendance or not, students are held responsible for all materials presented, discussed, or assigned during class time.

Academic Integrity Policy: Despite his outward cynicism, Dr. Lieb more-or-less believes in the general goodness and honesty of his fellow human beings. Nevertheless, those who try to shatter his illusions and betray the norms of academic integrity will be turned in to the Dean of Students
for disciplinary action. You may review UTEP policy in these matters at http://academics.utep.edu/Default.aspx?tabid=23785. Since each student will be writing an individual term paper, it would be wise for all to review the regulations concerning plagiarism.

Civility Policy: Civility between the student members of the class, and between the instructor and the students, is expected. Please use temperate language when speaking to one another and with Dr. Lieb.

Silence your cell phone before entering the classroom; please do not take calls during class time. Avoid all noisy endeavors not related to the matter at hand (talking, eating, snapping chewing gum, and, of course, snoring).

Your instructor will do his best to be there by the start of the class (4:30PM), please emulate him with timely appearances as well. Nevertheless, he would prefer you to be a few minutes late to being completely absent for the entire period (as a rare event, not something that happens frequently!). The general rule is: if you must enter or leave the room when class is in session, do so as quietly and quickly as possible.

Timeliness is especially important for examinations. In general a late-coming student will not be allowed to take an examination after the first student to complete it has left the room.

Disability Policy: If a student has or suspects he/she has a disability and needs an accommodation, he/she should contact the Center for Accommodations and Support Services (CASS) at 747-5148 or at <cass@utep.edu> or go to Room 106 Union East Building. The student is responsible for presenting to the instructor any CASS accommodation letters and instructions.

Military Call-up: Your instructor understands that students engaged in military service may be called up and deployed at any time. Please consult with Dr. Lieb as soon as your orders come through, so arrangements for completion or suspension of your academic work can be made.

Course Schedule/Calendar: The following ambitious schedule of lecture topics may be subject to modification as the semester deteriorates. Examination dates, however, are fixed. Moreover, should the lecture topics fall behind (or get ahead) in the schedule, the examinations will in that case follow the pace of the lecture material present.

Course Calendar

26 August – Introduction to course, review of course policies, other professorial expectations

28 August – Nature of science; Physical sciences versus biological science

2 September -- Biology’s uniqueness, its ancient roots, and the current Tower of Babel

4-11 September – Pre-Mendelian genetics, Mendel and his immediate heirs

16-25 September - The rise of molecular genetics

30 September – Examination I
2 October – Bioethics and the Brave New World, 21st Century Version

7 October - Evolutionary Thinking, pre-Darwin

9-14 October – Darwian Evolution and the “Synthetic Theory”

16-23 October - Evolutionary thinking in the 21st century

28-30 October - Ecology, from start of the discipline through “Who broke MacArthur’s Broken Stick Model?”

4 November – Examination II

6-11 November – Modern ecology and environmental science; opportunities or opportunism?

11 November – Complete, Final, good-as-you-can-make it version of Term Paper due

13-18 November – Ancient roots of medicine through the “physician as scientist” of the Enlightenment

20-25 November - Post-enlightenment physiology & medicine

27 November – University Holiday, no class

2-4 December – The flourishing and flourishes of cell and molecular biology; concluding remarks on the future of biological thought and knowledge

5 December – Both revised and original versions of Term Paper due today by 5PM

9 December, 4:00-6:45 PM – Examination III

Edition of 7 August 2014