

BIOL5101-002: Special Topics – Adaptation and Natural Selection
Fall 2010

Instructor: Trey Fondon

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Office Hours: MW 2:20 - 3:00

Section Information: BIOL5101-002

Time and Place of Class Meetings: LS121 5:00-5:50 Mondays

Description of Course Content: Controversies, misconceptions, fallacies, and challenges in evolutionary theory.

Topics will include:

- adaptation
- natural selection
- units of selection
- evolutionary fallacies
- directed mutation
- challenges to the modern synthesis
- group selection
- social adaptations
- contingency
- limits of selection
- canalization
- neutral theory
- evolvability
- non-Mendelian processes

Student Learning Outcomes: Students will gain sufficient mastery of the above topics to be able to apply them in their research and comprehend the literature.

Requirements: consent of the instructor

Required Textbooks and Other Course Materials: Adaptation and Natural Selection by George C. Williams

Grading Policy: 50% student presentations, 50% classroom discussion

Descriptions of major assignments:

Each student will make an oral presentation on a paper of his own selection from the primary peer-reviewed research literature that relates to and updates one or more of the topics covered in the course. **Papers/topics must be approved by the instructor at least two weeks in advance.**

The duration of the presentation will be ~30 minutes, with a discussion period to follow. The student will prepare sufficient copies of the paper(s) and give them to the instructor for distribution to other class members no less than one week prior to the presentation. It will be the student's responsibility to verify compatibility of computers and projection equipment, if applicable.

Presentations will be scored on content, accuracy, length, proper use and citation of non-original material, clarity, written and spoken grammar, style, and overall effectiveness. All students will complete standardized questionnaires/evaluations of each presentation.

Attendance Policy: attendance is required (see grading policy)

Drop Policy: Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. **Students will not be automatically dropped for non-attendance.** Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. Contact the Financial Aid Office for more information.

Americans with Disabilities Act: The University of Texas at Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including the *Americans with Disabilities Act (ADA)*. All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Any student requiring an accommodation for this course must provide the instructor with official documentation in the form of a letter certified by the staff in the Office for Students with Disabilities, University Hall 102. Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at www.uta.edu/disability or by calling the Office for Students with Disabilities at (817) 272-3364.

Academic Integrity: It is the philosophy of The University of Texas at Arlington that academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form. All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. Discipline may include suspension or expulsion from the University. According to the UT System Regents' Rule 50101, §2.2, "Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts."

Student Support Services Available: The University of Texas at Arlington has established a variety of programs to help students meet the challenges of college life. Support to students includes advising, counseling, mentoring, tutoring, supplemental instruction, and writing assistance. For a complete list of academic support services, visit the Academic Assistance resource page of the Office of Student Success Programs, www.uta.edu/uac/studentsuccess/academic-assistance. To help students address personal, academic and career concerns, individual counseling is also available. For more information, students are encouraged to contact Counseling Services www.counseling.uta.edu at (817) 272-3671 or visit a counselor in 216 Davis Hall.

Electronic Communication Policy: The University of Texas at Arlington has adopted the University "MavMail" address as the sole official means of communication with students. MavMail is used to remind students of important deadlines, advertise events and activities, and permit the University to conduct official transactions exclusively by electronic means. For example, important information concerning registration, financial aid, payment of bills, and graduation are now sent to students through the MavMail system. All students are assigned a MavMail account. **Students are responsible for checking their MavMail regularly.** Information about activating and using MavMail is available at <http://www.uta.edu/oit/email/>. There is no additional charge to students for using this account, and it remains active even after they graduate from UT Arlington.