

**BIOL 3442: Animal Physiology**  
Fall 2014

**Instructor:** David Britton, Ph.D.

**Office Number:** LS231

**Office Telephone Number:** 817 272-3714

**Email Address:** britton@uta.edu

**Office Hours:** by appointment, please email in advance.

**Section Information:** BIOL 3442-001, -004 Lecture

**Time and Place of Class Meetings:** Science Hall 125, Science Hall 331

**Description of Course Content:** A comparative study of animal function. Examples will be presented from different groups of animals, particularly the vertebrates, to identify the general principles of physiological mechanisms operating at the cellular, tissue, organ, and organismal levels. Laboratory studies will complement lecture material and will stress experimental design, data analysis, and the understanding of critical research in physiology.

This course schedule and the performance objectives were compiled to provide a guide to self-study for the student so that he/she comes to lectures prepared to obtain maximum benefit therefrom. The lectures are designed to give a basic framework for understanding animal physiology. They can, at best provide an overview of physiology and a clarification of the more difficult concepts under study. In the final analysis, the amount of knowledge gained from the lectures will be proportional to the commitment the student has made toward utilizing the limited amount of lecture time. Please come to lectures prepared!

The main purpose of the laboratory is to illustrate basic physiological principles. Much of the knowledge gained from these experiments is essential to both clinical and similar applied work. The physiological concepts demonstrated in the laboratory also serve to demonstrate some of the methods used by investigators to gain scientific knowledge.

The success of the laboratory is largely dependent on the student's commitment and participation. It would be advantageous to read the appropriate materials prior to each laboratory session. The laboratory staff, instructors, equipment and animals are there to help you gain a working knowledge of physiology.

**Student Learning Outcomes:** At the conclusion of this course, a successful student will be able to identify and describe common, fundamental animal physiological systems at the cellular, tissue, organ, organ system, and whole organism level. The successful student will be prepared for higher-level physiology courses and should be able to understand relevant, peer-reviewed scientific journal articles on many physiological topics.

**Required Textbooks and Other Course Materials:**

Animal Physiology: From Genes to Organisms, ISBN: 9780534554040

**Descriptions of major assignments and examinations:**

There will be four exams, including a comprehensive final.

**Attendance:** At The University of Texas at Arlington, taking attendance is not required. Rather, each faculty member is free to develop his or her own methods of evaluating students' academic performance, which includes establishing course-specific policies on attendance. As the instructor of this section, I will not take attendance, but regular attendance is strongly encouraged. I will not cover material during office hours for students who miss lectures.



**Grading:** Lab is worth 25% of your grade. The first exam is worth 15% of your grade. The second exam is worth 15% of your grade. The third exam is worth 20% of your grade. The final exam is worth 25% of your grade. Students are expected to keep track of their performance throughout the semester and seek guidance from available sources (including the instructor) if their performance drops below satisfactory levels; see “Student Support Services,” below.

**Make-up Exams:** Make-up exams are highly discouraged. Only in rare cases that are medically necessary will a make-up exam be allowed, and only with proper verification of the medical necessity. Job interviews, weddings, dead pets, ailing relatives, exams at another university or school are all unacceptable excuses for missing an exam.

**Expectations for Out-of-Class Study:** Beyond the time required to attend each class meeting, students enrolled in this course should expect to spend at least an additional 5 hours per week of their own time in course-related activities, including reading required materials, reviewing notes, preparing for exams, etc.

**Grade Grievances:** In attempting to resolve any student grievances regarding grades, it is the student's obligation first to make a serious effort to resolve the matter with the individual with whom the grievance originated. Individual course instructors retain primary responsibility for assigning grades. The instructor's judgment is final unless compelling evidence shows discrimination, preferential treatment or procedural irregularities. If students wish to appeal, their request must be submitted in writing—on an appeal form available in departmental or program offices—to the department chair or program director. The student has one calendar year from the date the grade is assigned to initiate the grievance. The normal academic channels are department chair or program director and then academic dean. However, before considering a grievance, the department chair or program director will refer the issue to a departmental or program committee of faculty. If the student does not find the committee's decision acceptable, the student may appeal to the academic dean. The decision of the dean is final. Information specific to the procedures to be followed in each academic unit is available in the office of the academic dean.

**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. For more information, contact the Office of Financial Aid and Scholarships (<http://www.uta.edu/aao/fao/>).

**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](http://www.uta.edu/disability) or by calling the Office for Students with Disabilities at (817) 272-3364.

**Title IX:** The University of Texas at Arlington is committed to upholding U.S. Federal Law “Title IX” such that no member of the UT Arlington community shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity. For more information, visit [www.uta.edu/titleIX](http://www.uta.edu/titleIX).

**Academic Integrity:** Students enrolled all UT Arlington courses are expected to adhere to the UT Arlington Honor Code:

*I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.*

*I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.*

UT Arlington faculty members may employ the Honor Code as they see fit in their courses, including (but not limited to) having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System *Regents' Rule* 50101, §2.2, suspected violations of university's standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student's suspension or expulsion from the University.

**Lab Safety Training:**

**Students registered for this course must complete all required lab safety training prior to entering the lab and undertaking any activities.** Once completed, Lab Safety Training is valid for the remainder of the same academic year (i.e., through the following August) and must be completed anew in subsequent years. There are no exceptions to this University policy. Failure to complete the required training will preclude participation in any lab activities, including those for which a grade is assigned.

**Electronic Communication:** UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at <http://www.uta.edu/oit/cs/email/mavmail.php>.

**Student Feedback Survey:** At the end of each term, students enrolled in classes categorized as "lecture," "seminar," or "laboratory" shall be directed to complete an online Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student's feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit <http://www.uta.edu/sfs>.

**Final Review Week:** A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week *unless specified in the class syllabus*. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

**Emergency Exit Procedures:** Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist individuals with disabilities.

**Student Support Services:** UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to [resources@uta.edu](mailto:resources@uta.edu), or view the information at [www.uta.edu/resources](http://www.uta.edu/resources).

### Course Schedule

Date	Material
August 21-23, 2014	Introduction to Animal Physiology
August 26-28, 2014	Cellular Physiology
September 2-4, 2014	Membrane Physiology
September 9-11, 2014	Neuronal Physiology
September 16-18, 2014	Exam I – September 18
September 23-25, 2014	Nervous Systems
September 30-Oct 2, 2014	Sensory Systems
October 7-9, 2014	Endocrine Systems
October 14-16, 2014	Exam II – October 23
October 21-23, 2014	Muscle Physiology
October 28-30, 2014	Circulatory Systems
October 29, 2014	Last Day to Drop a Class
November 4-6, 2014	Respiratory Systems
November 11-13, 2014	Exam III – November 13
November 18-20, 2014	Excretory Systems
November 25, 2014	Fluid and Acid/Base Balance
December 2, 2014	December 2, 2014 is the Last Class Day
December 9, 2014	Final Exam for SEC 004 Only - 11:00 – 1:30 pm
December 11, 2014	Final Exam for SEC 001 Only - 11:00 – 1:30 pm

*As the instructor for this course, I reserve the right to adjust this schedule in any way that serves the educational needs of the students enrolled in this course. –David K. Britton*

<p><b>Emergency Phone Numbers:</b> In case of an on-campus emergency, call the UT Arlington Police Department at <b>817-272-3003</b> (non-campus phone), <b>2-3003</b> (campus phone). You may also dial 911.</p>
---