

# Biology 1442-002 – Structure & Function Spring 2012

Instructor: Dr. Matthew Nelson

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MWF 9-10am, LS 119

<http://www.natureboy.com>



## **Prerequisites:**

BIOL 1441 also, you should note that this is a course for **biology majors**.

## **Description of course content:**

**Lecture:** The study of structure and function in plants and animals. Topics to be covered include structure at the level of the cell, tissue, organ and individual growth, transport/circulation/gas exchange, nutrition, reproduction, development, endocrinology, and animal neural regulation. The laboratory will examine plant and animal structure and function with observational and experimental approaches.

## **Student Learning Outcomes:**

The specific learning goals for Structure & Function is to understand the major anatomical structures and physiological mechanisms that allow plants and animals to function.

## **Required texts:**

Biology, 6th, 7th or 8th ed. by Campbell and Reece

## **Lecture Topics:**

(There is a class calendar available on [www.natureboy.com](http://www.natureboy.com))

<b><u>Topic</u></b>	<b><u>Chapter (may vary with edition)</u></b>	<b><u>target week</u></b>
syllabus / natural selection / plant taxonomy		jan 17
Syllabus / Plant Structure and Growth	35	jan 24
Transport in Plants	36	feb 1
Plant Nutrition	37	feb 7
Plant Reproduction / Plant Responses to signals	38-39	feb 14
<b><u>FIRST EXAMINATION</u></b>	<b><u>35-39</u></b>	<b><u>feb 21</u></b>
Introduction: Animal Structure and Function	40	feb 28
Regulating the Internal Environment	44	mar 6
Circulation and Gas Exchange	42	mar 20
Animal Nutrition	41	mar 27
<b><u>SECOND EXAMINATION</u></b>	<b><u>40, 41, 42, 44</u></b>	<b><u>mar 30</u></b>
The Body's Defenses (immune system)	43	apr 3
Animal Reproduction	46	apr 10
Animal Development	47	apr 17
Chemical Signals in Animals	45	apr 24
<b><u>THIRD EXAMINATION</u></b>	<b><u>43, 45, 46, 47</u></b>	<b><u>apr 27</u></b>
Nervous Systems	48	may 1
Sensory and Motor Mechanisms	49	may 3
<b><u>Final EXAM</u></b>	<b><u>comprehensive</u></b>	<b><u>May 9, 9am</u></b>

## **Grading policy:**

Your grade will be determined as follows

- Three lecture examinations = 47% of grade
- Final exam = 20% of the grade
- Laboratory grade = 33% of grade
- Grades: A = 90-100; B = 80-89; C = 70-79; D = 60-69; F = below 60

**THERE WILL BE NO EXTRA CREDIT, SO DON'T ASK.**

### **Exams:**

**You will need to study for these.** The best way to prepare for the exams is to attend class and take good notes. Study the book and the notes. Keep in mind you will need to use your brain during the test.

### **Make-up Examination Policy:**

**Students are required to attend all examinations. Only valid, documented, excuses will be accepted for missing an examination.** Without a valid excuse for missing an examination, a student will be assigned a grade of 0% for that examination. A test that was missed for a legitimate reason will be replaced with the grade on the final exam. **SEE ME WITHIN ONE WEEK OF MISSING THE TEST TO QUALIFY!**

### **Attendance Policies:**

Attendance is required at each lecture and excessive absences can potentially affect your course grade. If you miss class it is strongly suggested that you get the notes from a classmate. I might post notes on the web, but don't ask me to do so. Also, don't ask me when they will be posted. If they are posted it is done as a courtesy, not an entitlement.

### **STUDENT RESPONSIBILITIES**

- A. Familiarize yourself with the course syllabus
- B. Attend class regularly. I will not take attendance, but if you do not show up for class, I will have no sympathy when you fail the tests.
- C. Assume responsibility for your own learning
- D. Adhere strictly to standards of academic honesty
- E. Show respect for instructor and fellow students at all times

### **Important University Policies:**

**Drop Policy:** If you choose to drop the course, you have to do so by Mar 30. However, I am not expecting you to drop. I am not going to remind you. 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/ses/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.

**Academic Integrity:** At UT Arlington, academic dishonesty is completely unacceptable and will not be tolerated in any form, including (but 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" (UT System Regents' Rule 50101, §2.2). Suspected violations of academic integrity standards 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.

**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 contact the Maverick Resource Hotline by calling 817-272-6107, sending a message to [resources@uta.edu](mailto:resources@uta.edu), or visiting [www.uta.edu/resources](http://www.uta.edu/resources).

**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 will be asked to complete an online Student Feedback Survey (SFS) about the course and how it was taught. Instructions on how to access the SFS system will be sent directly to students through MavMail approximately 10 days before the end of the term. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback data is required by state law; student participation in the SFS program is voluntary.

**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.