

TEXAS A&M INTERNATIONAL UNIVERSITY  
COLLEGE OF ARTS AND SCIENCES  
DEPARTMENT OF BIOLOGY AND CHEMISTRY

FALL 2012

Lecture:

10302 BIOL 2301 101 Anatomy & Physiology I 1:30pm-2:20pm MWF  
Lecture room: BH 101

Laboratory:

10286 BIOL 2001 1L1 Anatomy and Physiology I Lab 15:30-18:20 M  
10287 BIOL 2001 1L2 Anatomy and Physiology I Lab 09:30-12:20 T  
10289 BIOL 2001 1L3 Anatomy and Physiology I Lab 14:00-16:50 T  
10291 BIOL 2001 1L4 Anatomy and Physiology I Lab 09:30-12:20 R  
10292 BIOL 2001 1L5 Anatomy and Physiology I Lab 14:00-16:50 R  
10293 BIOL 2001 1L6 Anatomy and Physiology I Lab 15:00-17:50 F  
10294 BIOL 2001 1L7 Anatomy and Physiology I Lab 09:00-11:50 S  
Laboratory room: LBVSC 188

Instructors:

Name: Fernando G. Quintana, Ph.D.  
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W 6:00pm to 7:00pm

Laboratory Instructors

Name: Oscar Ramos, M.Sc.  
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Office hours: By appointment

Course description:

BIOL 2401 Anatomy and Physiology I. Four semester hours

A study of the structure and function of the human body including cells, tissues, and organs of the following systems: integumentary, skeletal, muscular, nervous system and special senses. Prerequisite: Consult your departmental advisor or obtain instructor's permission. Carries no credit for biology majors. Lecture/Laboratory. Lab fee: \$30.00. Texas A&M International University, Catalog 2008-2009, page 280.

Student Learning Outcomes: After completing of the course the students will be able to:

1. Apply critical thinking to examine primary literature concerning anatomy and physiology in order to effectively defend a conclusion.
2. Use the scientific method to design an experiment and analyze a data set to determine a conclusion.
3. Demonstrate effective technical communication skills.
4. Collaborate effectively on a research project and on a presentation of scientific results
5. Discuss homeostasis
6. Describe the anatomy terminology and body plan
7. Describe the structure of human cells
8. Discuss the functions of human cells
9. Describe the tissues of the human body
10. Discuss the function of the tissues of the human body
11. Microscopically identify the tissues of the human body
12. Describe the structure of the integumentary system
13. Discuss the functions of the integumentary system
14. Describe the structure of the bones
15. Discuss the functions of the skeletal system

16. Identify and describe the two hundred and six named bones of the human body
17. Describe the structure and function of the three types of muscle tissue
18. Describe the functions of the muscular system
19. Identify and describe the major skeletal muscles of the human body
20. Describe the structure of neurons and neuroglia
21. Discuss the function of neurons and neuroglia
22. Describe the central nervous system
23. Discuss the function of the central nervous system
24. Describe the peripheral nervous system
25. Discuss the function of the peripheral nervous system including the motor, sensor, and autonomic systems
26. Describe the structure of the senses of the human body
27. Discuss the functions of the senses of the human body

**Core-Curriculum Learning Outcomes:**

1. Critical Thinking: includes creative thinking, innovation, inquiry and analysis, evaluation, and synthesis of information. (SLOs: 1 & 2)
2. Communication Skills: Students will demonstrate their ability to communicate effectively by using written communication. (SLOs: 3 & 4)
3. Empirical and Quantitative Skills: includes the manipulation and analysis of numerical data or observable facts resulting in informed conclusions. (SLOs: 2)
4. Teamwork: includes the ability to work effectively with others to support a shared goal. (SLOs: 4)

**Textbooks:**

**Human Anatomy & Physiology; Eighth Edition**  
 Elaine N. Marieb; Katja Hoehn  
 Benjamin Cummings; ISBN 978-0-8053-9569-3

**Human Anatomy & Physiology: Laboratory Manual; Eighth Edition**  
 Elaine N. Marieb; Susan J. Mitchell  
 Benjamin Cummings; ISBN 0-321-54247-9

**Course Grading Policy:**

There will be twenty-eight class exams, a laboratory practical exam, a research project, and a final comprehensive examination. Your final grade will be calculated based on the following distribution:

- |    |                          |           |
|----|--------------------------|-----------|
| 1. | Class Exams              | 30 point  |
| 2. | Laboratory               | 30 points |
| 3. | Final Comprehensive Exam | 30 points |
| 4. | Research project         | 10 points |

Grades will be recorded from “A” to “F”. Numerical values corresponding to these letters are as follows:

- |   |                   |
|---|-------------------|
| A | 90-100, excellent |
| B | 80-89, good       |
| C | 70-79, average    |
| D | 60-69, passing    |
| F | below 60, failure |

**Notes:**

You are expected to be present for every class meeting and laboratory session.

Exams and laboratory sessions will not be made up under any circumstance. Please, advise the instructor in case of emergency. If a partial grade is missed and the absence has been excused, the grade of the final exam will be used to replace the missed grade to compute the course final grade.

**Important Dates:**

August 23	First Class Day.
August 29	Final Late Registration Day; course changes continue through September 7 with permission of instructor.
August 31	Freshman Convocation.
September 3	Labor Day. Classes meet.
September 7	Twelfth Class Day; last day courses may be dropped without record. December 2012 graduation applications and payment deadline. <b>NO REGISTRATION BEYOND THIS POINT.</b>
September 11	National Remembrance Day.
September 17	Constitution Day.
September 19	Twentieth Class Day. All tuition and fees <b>MUST</b> be paid in full to avoid being dropped from course(s) for non-payment.

October 6	AutMus Fest. Classes meet.
October 18-20	Mid Semester Break. No Classes.

October 29	Spring 2013 Registration Opens.
October 31	Mid-term Grades Due.
November 9	Last day to drop or withdraw from the University.
November 12-17	Faculty Evaluations.
November 21-24	Thanksgiving Holidays.
December 4	Last Class Day.
December 5	Reading Day. No classes. No Exams.
December 6-12	Final Exam period.

**Tentative sessions:**

<b>Day</b>	<b>Topic</b>	<b>Session</b>
Friday, August 24	An Introduction to The Human Body	1
Monday, August 27	The importance of Physics and Chemistry for Human Physiology	2
Wednesday, August 29	The importance of Physics and Chemistry for human Physiology	3
Friday, August 31	The Human Cells	4
Monday, September 3	The Human Tissues	5
Wednesday, September 5	The Human Tissues	6
Friday, September 7	The Integumentary System	7
Monday September 10	The Skeletal Tissue	8
Wednesday, September 12	The Skeletal Tissue	9
Friday, September 14	The Skull	10
Monday September 17	The Axial Skeleton	11
Wednesday, September 19	The Axial Skeleton	12
Friday, September 21	The Appendicular Skeleton	13
Monday, September 24	The Joints	14
Wednesday, September 26	The Joints	15
Friday, September 28	Muscles and Muscle Tissue	16
Monday, October 1	Muscles of the Head	17
Wednesday, October 3	Muscles of the Head	18
Friday, October 5	Muscles of the Neck and Vertebral Column	19
Monday, October 8	Muscles of the Thorax & Abdominal Wall	20
Wednesday, October 10	Muscles of the Thorax & abdominal Wall	21
Friday, October 12	Muscles of the Upper Limb	22
Monday, October 15	Muscles of the Lower Limb	23
Wednesday, October 17	Muscles of the Lower Limb	24
Friday, October 19	Mid Semester Break	25
Monday, October 22	Fundamentals of the Nervous System	26
Wednesday, October 24	Fundamentals of the Nervous system	27
Friday, October 26	The Brain II	28
Monday, October 29	The Spinal Cord	29
Wednesday, October 31	The spinal cord	30
Friday, November 2	Sensory Receptors	31
Monday, November 5	The Cranial Nerves	32
Wednesday, November 7	The Cranial Nerves	33
Friday, November 9	Faculty Evaluation	34
Monday, November 12	The Spinal Nerves	35
Wednesday, November 14	The Spinal Nerves	36
Friday, November 16	Reflex Activity	37
Monday, November 19	The Autonomic Nervous System	38
Wednesday, November 21	Thanksgiving Holiday	39
Friday, November 23	Thanksgiving Holiday	40
Monday, November 26	The Eye and Vision	41
Wednesday, November 28	The Eye and Vision	42
Friday, November 30	The Chemical Senses: Taste and Smell	43
Monday, December 3	Hearing and	44
Wednesday, December 5	Balance	45
Monday, December 10	Final Exam: 11:00am BH 101	46

# Policies of the College of Arts and Sciences

(Required on all COAS Syllabi)

## Classroom Behavior

The College of Arts and Sciences encourages classroom discussion and academic debate as an essential intellectual activity. It is essential that students learn to express and defend their beliefs, but it is also essential that they learn to listen and respond respectfully to others whose beliefs they may not share. The College will always tolerate diverse, unorthodox, and unpopular points of view, but it will not tolerate condescending or insulting remarks. When students verbally abuse or ridicule and intimidate others whose views they do not agree with, they subvert the free exchange of ideas that should characterize a university classroom. If their actions are deemed by the professor to be disruptive, they will be subject to appropriate disciplinary action, which may include being involuntarily withdrawn from the class.

**Plagiarism and Cheating** Plagiarism is the presentation of someone else's work as your own. **1)** When you borrow someone else's facts, ideas, or opinions and put them entirely in your own words, you must acknowledge that these thoughts are not your own by immediately citing the source in your paper. Failure to do this is plagiarism. **2)** When you also borrow someone else's words (short phrases, clauses, or sentences), you must enclose the copied words in quotation marks as well as citing the source. Failure to do this is plagiarism. **3)** When you present someone else's paper or exam (stolen, borrowed, or bought) as your own, you have committed a clearly intentional form of intellectual theft and have put your academic future in jeopardy. This is the worst form of plagiarism.

Here is another explanation from the 2010, sixth edition of the *Manual of The American Psychological Association* (APA):

*Plagiarism:* Researchers do not claim the words and ideas of another as their own; they give credit where credit is due. Quotations marks should be used to indicate the exact words of another. *Each* time you paraphrase another author (i.e., summarize a passage or rearrange the order of a sentence and change some of the words), you need to credit the source in the text.

The key element of this principle is that authors do not present the work of another as if it were their own words. This can extend to ideas as well as written words. If authors model a study after one done by someone else, the originating author should be given credit. If the rationale for a study was suggested in the Discussion section of someone else's article, the person should be given credit. Given the free exchange of ideas, which is very important for the health of intellectual discourse, authors may not know where an idea for a study originated. If authors do know, however, they should acknowledge the source; this includes personal communications. (pp. 15-16)

Consult the Writing Center or a recommended guide to documentation and research such as the *Manual of the APA* or the *MLA Handbook for Writers of Research Papers* for guidance on proper documentation. If you still have doubts concerning proper documentation, seek advice from your instructor prior to submitting a final draft.

**Penalties for Plagiarism:** Should a faculty member discover that a student has committed plagiarism, the student should receive a grade of 'F' in that course and the matter will be referred to the Honor Council for possible disciplinary action. The faculty member, however, may elect to give freshmen and sophomore students a "zero" for the assignment and to allow them to revise the assignment up to a grade of "F" (50%) if they believe that the student plagiarized out of ignorance or carelessness and not out of an attempt to deceive in order to earn an unmerited grade. This option should not be available to juniors, seniors, or graduate students, who cannot reasonably claim ignorance of documentation rules as an excuse. **Caution:** Be very careful what you upload to Turnitin or send to your professor for evaluation. Whatever you upload for evaluation will be considered your final, approved draft. If it is plagiarized, you will be held responsible. The

excuse that "it was only a draft" will not be accepted. *Caution:* Also, do not share your electronic files with others. If you do, you are responsible for the possible consequences. If another student takes your file of a paper and changes the name to his or her name and submits it and you also submit the paper, we will hold both of you responsible for plagiarism. It is impossible for us to know with certainty who wrote the paper and who stole it. And, of course, we cannot know if there was collusion between you and the other student in the matter.

***Penalties for Cheating:*** Should a faculty member discover a student cheating on an exam or quiz or other class project, the student should receive a "zero" for the assignment and not be allowed to make the assignment up. The incident should be reported to the chair of the department and to the Honor Council. If the cheating is extensive, however, or if the assignment constitutes a major grade for the course (e.g., a final exam), or if the student has cheated in the past, the student should receive an "F" in the course, and the matter should be referred to the Honor Council. Under no circumstances should a student who deserves an "F" in the course be allowed to withdraw from the course with a "W."

***Student Right of Appeal:*** Faculty will notify students immediately via the student's TAMIU e-mail account that they have submitted plagiarized work. Students have the right to appeal a faculty member's charge of academic dishonesty by notifying the TAMIU Honor Council of their intent to appeal as long as the notification of appeal comes within 5 business days of the faculty member's e-mail message to the student. The *Student Handbook* provides details.

### **UConnect, TAMIU E-Mail, and Dusty Alert**

Personal Announcements sent to students through TAMIU's UConnect Portal and TAMIU E-mail are the official means of communicating course and university business with students and faculty – not the U.S. Mail and not other e-mail addresses. Students and faculty must check UConnect and their TAMIU e-mail accounts regularly, if not daily. Not having seen an important TAMIU e-mail or UConnect message from a faculty member, chair, or dean is not accepted as an excuse for failure to take important action. Students, faculty, and staff are encouraged to sign-up for *Dusty Alert* (see [www.tamtu.edu](http://www.tamtu.edu)). *Dusty Alert* is an instant cell phone text-messaging system allowing the university to communicate immediately with you if there is an on-campus emergency, something of immediate danger to you, or a campus closing.

### **Copyright Restrictions**

The Copyright Act of 1976 grants to copyright owners the exclusive right to reproduce their works and distribute copies of their work. Works that receive copyright protection include published works such as a textbook. Copying a textbook without permission from the owner of the copyright may constitute copyright infringement. Civil and criminal penalties may be assessed for copyright infringement. Civil penalties include damages up to \$100,000; criminal penalties include a fine up to \$250,000 and imprisonment.

### **Students with Disabilities**

Texas A&M International University seeks to provide reasonable accommodations for all qualified persons with disabilities. This University will adhere to all applicable federal, state, and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal education opportunity. It is the student's responsibility to register with the Director of Student Counseling and to contact the faculty member in a timely fashion to arrange for suitable accommodations.

### **Incompletes**

Students who are unable to complete a course should withdraw from the course before the final date for withdrawal and receive a "W." To qualify for an "incomplete" and thus have the opportunity to complete the course at a later date, a student must meet the following criteria:

1. The student must have completed 90% of the course work assigned before the final date for withdrawing from a course with a "W", and the student must be passing the course;
2. The student cannot complete the course because an accident, an illness, or a traumatic personal or family event occurred after the final date for withdrawal from a course;
3. The student must sign an "Incomplete Grade Contract" and secure signatures of approval from the professor and the college dean.
4. The student must agree to complete the missing course work before the end of the next long semester; failure to meet this deadline will cause the "I" to automatically be converted to a "F"; extensions to this deadline may be granted by the dean of the college.

This is the general policy regarding the circumstances under which an "incomplete" may be granted, but under exceptional circumstances, a student may receive an incomplete who does not meet all of the criteria above if the faculty member, department chair, and dean recommend it.

### **Student Responsibility for Dropping a Course**

It is the responsibility of the STUDENT to drop the course before the final date for withdrawal from a course. Faculty members, in fact, may not drop a student from a course without getting the approval of their department chair and dean.

### **Independent Study Course**

Independent Study (IS) courses are offered only under exceptional circumstances. Required courses intended to build academic skills may not be taken as IS (e.g., clinical supervision and internships). No student will take more than one IS course per semester. Moreover, IS courses are limited to seniors and graduate students. Summer IS course must continue through both summer sessions.

### **Grade Changes & Appeals**

Faculty are authorized to change final grades only when they have committed a computational error or an error in recording a grade, and they must receive the approval of their department chairs and the dean to change the grade. As part of that approval, they must attach a detailed explanation of the reason for the mistake. Only in rare cases would another reason be entertained as legitimate for a grade change. A student who is unhappy with his or her grade on an assignment must discuss the situation with the faculty member teaching the course. If students believe that they have been graded unfairly, they have the right to appeal the grade using a grade appeal process in the *Student Handbook* and the *Faculty Handbook*.

### **Final Examination**

Final Examination must be comprehensive and must contain a written component. The written component should comprise at least 20% of the final exam grade. Exceptions to this policy must receive the approval of the department chair and the dean at the beginning of the semester.

