HUMAN ANATOMY & PHYSIOLOGY I
Biology 2457-001
Summer 2013
M-R 10:30 – 12:30
122 Life Science Building

Instructor: Dr. Lee Ann Frederick
Office: 465 Life Science Building
Office Hours: 9:30-10:30 M-R, by appointment
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Course Prerequisites: Biology 1441 or equivalent (Biol1333 & 1334), and approval of the department.

Required Textbook(s):
LECTURE – Principles of Anatomy & Physiology, Tortora & Derrickson 13th edition

Course Description: This course introduces the basic anatomical terms of the human body, reviews cellular & molecular concepts to be applied at the systematic level, and covers the structure and function of the integumentary, skeletal, muscular and nervous systems.

This course satisfies the University of Texas at Arlington core curriculum requirement in life and physical sciences. The italicized student learning outcomes required of core courses below will be assessed for each student in the laboratory portion of the course. The final lab report will be assessed to determine how a student has mastered critical thinking, communication, and empirical and quantitative skills. A teamwork assessment (peer evaluation) will be completed by each student in lab to determine how students work together in lab groups to achieve the student learning outcomes described below.

Student Learning Outcomes:

• Students will adequately demonstrate their knowledge of the basic structures and organization of the integumentary, skeletal, muscular and nervous systems.
• Students will apply their knowledge of molecular and cellular biology to relevant physiological processes, demonstrating their ability to engage in innovative thinking, scientific data collection, and analysis and interpretation of quantitative information using the scientific method.
• Critical Thinking Skills: to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information;
• Communication Skills: to include effective development, interpretation and expression of ideas through written, oral and visual communication
• Empirical and Quantitative Skills: to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions
• Teamwork: to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal

Attendance and Drop Policy: Attendance is not mandatory. Due to the volume and intensity of the material to be covered in five weeks it is not likely you will pass if you do not attend every day.

Please note that the last day to withdraw from class with a "W" is June 24, 2013. Be aware that after this date you will receive an academic grade in the course. Initiating the drop procedure is the student's responsibility.

Specific Course Requirements with Descriptions: Lecture 65%, Lab 35%
Lecture: 650 pts
2 Lecture exams 390 pts
1 Comprehensive final 260 pts

Lab: 350 pts
2 Lab practicals 200 pts
Quizzes 50 pts
Group presentation 30 pts*
Group and self-evaluation 20 pts*
Lab write-up 1 25 pts
Lab write-up 2 25 pts*

*Signature Assignments

Grading Scale:
89.5-100 A 69.5-79.4 C 0-59.5 F
79.5-89.4 B 59.5-69.4 D

Lecture Schedule:
Ch 1 Intro to human body Ch 7 Axial skeleton Ch 13 Spinal cord & spinal nerves
Ch 2 Basic chemistry Ch 8 Appendicular skeleton Ch 14 Brain & cranial nerves
Ch 3 Cells Ch 9 Joints Ch 15 Autonomic nervous system
Ch 4 Tissues Ch 10 Muscle physiology Ch 16 Somatic nervous system
Ch 5 Integumentary system Ch 11 Muscular system Ch 17 Special senses
Ch 6 Bone physiology Ch 12 Nerve physiology
Exam 1 Exam 2 Final exam- cumulative

Lab Schedule:
Lab 1: Language of anatomy, Organ systems Lab 5: Muscle contraction, Muscle actions
Lab 2: Light microscope, Tissues, Integumentary system Lab 6: Spinal cord, brain, nerves
Lab 3: Bone structure & function, Axial skeleton Lab 7: Somatic reflexes, Autonomic nervous system
Lab 4: Appendicular skeleton, Joints Lab 8: General senses, Special senses
Practical 1 Practical 2

Signature Assignments: Signature assignments will aid instructors and curriculum evaluators in assessing student development in the areas of critical thinking, communication, empirical and quantitative skills, and teamwork. The second lab write-up (described below) will serve as the signature assignment for this course.

1. Lab Group Presentation: Groups of four students will give a ten minute presentation on a body system to foster teamwork and enhance verbal and visual communication skills. Team members will evaluate themselves and their team members using the teamwork rubric on Blackboard. The teamwork rubric will assess contribution of each member, cooperation and self-management (20 points).

Presenters will be graded on the following (30 points):

- Content- organization, subject knowledge, grammar
- Verbal skills- enthusiasm, pronunciation, clear voice, volume, polished flow
- Nonverbal skills- body language, eye contact, poise

2. Lab Write-Ups: Students are required to complete two lab write-ups. Students will collect data as a group. Individually, students will devise a hypothesis, assimilate the data from their group, generate a graph in an excel spreadsheet and write a paragraph interpreting and analyzing their data which includes support from one scientific source.

Lab write-ups will graded on the experimental design, data collection, scientific results, analysis and organization and grammar. Lab write-ups will be submitted as PDFs through Safe Assign on Blackboard.
**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. "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." (Regents' Rules and Regulations, Part One, Chapter VI, Section 3, Subsection 3.2, Subdivision 3.22)

**Drop for non-payment of tuition:** Payment must be received by the term due date of June 3, 2013 or your registration will be cancelled. If your registration is cancelled for non-payment, you may reregister for classes but only if seats are available.

**Bomb Threats:** If anyone is tempted to call in a bomb threat, be aware that UTA will attempt to trace the phone call and prosecute all responsible parties. Every effort will be made to avoid cancellation of presentations/tests caused by bomb threats. Unannounced alternate sites will be available for these classes. Your instructor will make you aware of alternate class sites in the event that your classroom is not available.

**Student Success Services:** The University of Texas at Arlington supports a variety of student success programs to help you connect with the University and achieve academic success. They include learning assistance, developmental education, advising and mentoring, admission and transition, and federally funded programs. Students requiring assistance academically, personally, or socially should contact the Office of Student Success Programs at 817-272-6107 for more information and referrals.

**Americans with Disabilities Act:** The University of Texas at Arlington is on record as being committed to both the spirit and letter of federal equal opportunity legislation; reference Public Law 93112 -- The Rehabilitation Act of 1973 as amended. With the passage of new federal legislation entitled Americans with Disabilities Act - (ADA), pursuant to section 504 of The Rehabilitation Act, there is renewed focus on providing this population with the same opportunities enjoyed by all citizens.

As a faculty member, I am required by law to provide "reasonable accommodation" to students with disabilities, so as not to discriminate on the basis of that disability. Student responsibility primarily rests with informing faculty at the beginning of the semester and in providing authorized documentation through designated administrative channels. If you require an accommodation based on disability, I would like to meet with you in the privacy of my office, during the first week of the semester, to make sure you are appropriately accommodated.