Course Syllabus For  
**Biol 2401-83007: Anatomy and Physiology 1**  
4 credit hours (3 lec/3 lab)  

**Semester and Year:** Spring 2019  
**Sections:** BIOL-2401-83007  
**Class time and days:**  
Lecture: TR 11:00AM – 12:20PM  
Lab: R 8:00AM – 10:50AM  

**Room:**  
WH277 (Lecture), SH131 (Lab)  

**Instructor:**  
Dr. Benjamin Miller  
**Contact Info:**  
brm8401@dccc.edu  

**Office hours:** by appointment  
**Last date to withdraw:** April 17, 2019  
**Final Exam Day/time:** Tuesday, May 14, 2019; Exam time: 11:00 – 12:50  

**Evaluation Procedures:**  
A = 90-100%, B = 80-90%, C = 70-80%, D = 60-70%, less than 60% = F.  
This may change at the discretion of the instructor.  

Course grade is determined as follows:  

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
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<tbody>
<tr>
<td>Lecture exams 4 @ 100 pts. Each</td>
<td>400</td>
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<tr>
<td>Cumulative Final Exam</td>
<td>100</td>
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<tr>
<td>Lab practicals 3 @ 70 pts. Each</td>
<td>210</td>
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<tr>
<td>Pre-lab quizzes (9 out of 10 – 1 drop)</td>
<td>90</td>
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<tr>
<td>Mastering A&amp;P homeworks (17 @ 10 pts)</td>
<td>170</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>970</td>
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</table>

- **LAB points:** The pre-lab quizzes are due before lab starts. If you are not in lab that week, you get no pre-lab points; however, there will be a couple of extra ones you can use as drops. There are no make-ups for missed Lab Practic. 
- **Exams:** No make-up lecture exams (unless certified excuse). **NOTE** that the final exam will replace one of the other four exams if the final score is higher.  
- **NO Bonus points**

**Attendance Policy:** In order to be successful, students must attend and participate in enrolled courses. Attendance is necessary for class participation and course work. There will be no make-up opportunities for missed assignments. Thus, it is strongly recommended that students attend each class. However, there will be no official course grading policy on attendance. If there is a conflict in your schedule, contact me ASAP. If some unforeseen (or foreseen, for that matter) problem keeps you from a class period which has a lecture test scheduled, there will be a make-up at the END of the semester, in essay format. There
are no make-up lab practicals: if you cannot attend your own section’s scheduled lab practical, you will need to attend another lab period during the lab practical time period.

You are expected to be in class every period. Missing a 3 hour weekly lab is REALLY going to affect your lab grade, so try to go to another section to make the lab up. I can give you times of other sections. However, you need to introduce yourself to that instructor, and ask them if it is alright to attend their lab.

If you are unable to complete this course, it is your responsibility to withdraw formally---by Thursday, Nov 17. The withdrawal request must be received in the Registrar’s Office by the drop date. Failure to do so will result in your receiving a performance grade, usually an “F.”

Required Materials:
The Mastering A&P homework system is REQUIRED (comes w/ either NEW lecture text OR or bought stand-alone through Pearson website if you prefer to buy used text).

1. Textbook: FUNDAMENTALS OF ANATOMY & PHYSIOLOGY (11th ed.)—4 choices
   - Mastering A&P with eText - ISBN 013447869x or 9780134478692
   - Mastering A&P + 3 hole punch unbound print - ISBN 0134478754 or 9780134478753
   - Mastering A&P + clothbound text - ISBN 013439495x or 9780134394954
   - IF YOU ALREADY HAVE A TEXTBOOK, and just need the MAP access---can buy directly from masteringaandp.com (which then changes to https://www.pearsonmylabandmastering.com/northamerica/masteringaandp/, oddly enough).


Be sure to bookmark this website---http://delrio.dcccd.edu/jreynolds/A&P/index.html. It has links to lab practical reviews, graphics that go along with the lab manual, and links for microbiology courses, also.

Get into Mastering A&P with http://masteringaandp.com --register for the homework system, by using the COURSE ID miller25069

Instructor Policies and Suggestions for Student Success:

- Students pursuing careers in the Health Professions can find specific information on occupations, resources, financial aid, and programs at Texas institutions at this RLC Health Professions website: www.rlc.dcccd.edu/medcareers
- This class DEMANDS group interactive skills, both in lab and lecture. Be aware that you will have to COOPERATE with lab partners, in addition to collaborative work groups in the lecture class. Be prepared to be an ACTIVE learner, and to work cooperatively with other students: IF YOU CANNOT OR WILL NOT DO THIS, YOU MIGHT WANT TO RE-THINK THIS CLASS.
- MINK DISSECTIONS ARE PERFORMED IN THE LAB, PER TABLE: BE AWARE OF THIS REQUIREMENT. IT IS YOUR RESPONSIBILITY TO HAVE GLOVES WHEN NEEDED IN LAB.
- You are expected to behave in an adult manner while in class. Inappropriate class behaviors include sleeping, working on other class assignments, talking incessantly, and cheating. If you behave in a nonadult, irresponsible manner, you will be asked to leave the classroom. Cheating on a lab quiz or lecture exam is absolutely forbidden and is grounds for giving you an F as a course grade.
- Assignments are DUE at the beginning of class on the day it is due. If it is late, points will be taken off. If it is more than 2 days late, there will be no credit for the assignment.
- Please be considerate enough to turn your cell telephones to vibrate, AND leave the room as quietly as possible to talk (ONLY IF ABSOLUTELY NECESSARY to talk right then and right there!). During an exam or lab practical, all phones will be put up and turned off. No text messaging during classtime, please.
- FOOD AND DRINK IN THE CLASSROOM? You may bring in munchies and drinks IN, but you have to carry the trash from these items OUT! I will remind you about this if I see you leaving trash.
- Consider this class as or more important than your job. It is not O.K. to leave lab early, or miss lab completely, because of work.
- **NO WHINING IS ALLOWED!!!**
“Academic dishonesty” is understood as any act of deceit bearing on one’s own or another’s academic work, where “academic work” is understood to mean any activity pertaining to the educational mission of the college. Such acts include, but are not limited to, plagiarism in any form; the use during an exam of information or materials not authorized by the instructor for such use and any other activities which are designed to deceive an instructor in the evaluation of the level of the student’s achievement.

plagiarism = deliberate use of someone else’s language, ideas, or other original (not common-knowledge) material without acknowledging its source. This definition applies to texts published in print or on-line, to manuscripts, and to the work of other student writers. Plagiarism is the taking of someone’s ideas and misrepresenting them as one’s own ideas. Most people know that this obviously includes word-for-word lifting of words, but it also includes lifting ideas (even paraphrasing them in your own words) without giving someone credit for them (either by footnoting, or in the Works Cited at end of the paper). Plagiarism is NOT allowed.

Academic Misconduct Regarding Exams & Lab Practicals:

Cheating on tests and lab practicals include, but is not limited to, the following activities:

- looking onto someone’s answer sheet, even if you do not use their answers,
- knowingly allowing someone to look onto your answer sheet,
- using a cheat sheet, or other unauthorized material
- talking to someone or otherwise exchanging information during an exam,
- asking someone what is on a lab practical or telling someone what is on a lab practical,
- waiting out in the hallway when people have just taken the exam to hear them discuss the lab exam.
- removing from lab any material meant to stay in lab, e.g., models, dissected organs, etc.,
- writing answers on the table
- writing answers on the question card
- going or looking into a lab where the lab practical is set up, and,
- getting the answer key before the test.

Students should not leave during an exam, quiz, or lab practical to use the bathroom. Go BEFORE the exam. If you have a health problem which your instructor needs to know about, to enable you to leave class to go to the restroom, please inform him/her at the beginning of the semester.

Any student violating any rule(s) above will get a ZERO on the lab practical exam.

College Policies and Procedures:
For Institution Policies, please refer to Richland College Institution Policies [http://www.richlandcollege.edu/syllabusinfo/]

Catalog Course Description

Course Description: This is the second course of a two course sequence. Structure and function as related to the human circulatory, respiratory, urinary, digestive, reproductive, and endocrine systems are studied. Emphasis is placed on the interrelationships of these systems. This is a transferable course intended for those seeking to complete a Bachelor's Degree. (3 Lec., 3 Lab.)

Pre-requisites: BIOL 2401. One of the following must be met: (1) DREA 0093 AND DWRI 0093; (2) English as a Second Language (ESOL) 0044 AND 0054; or (3) have met Texas Success Initiative (TSI) in Reading and Writing standards AND the college Writing score prerequisite requirement.

Course Objectives
Biology 2401 is recommended as required or an elective course for biology majors, pre-medical/pre-dental students, nursing students, and others who are in the allied health professions. The semester covers the structure and function of the human body in both a lab and lecture format. In addition to the extensive lab coverage of human anatomy and
histology, mink dissections will be a major component of the course. Biol 2401 examines cell structure and function, tissues, and the skeletal, muscular, and nervous systems. Emphasis is on structure, function, and the interrelationships of the human systems, as well as regulation of physiological functions involved in maintaining homeostasis.

- Learn basic anatomical and physiological terminology. Use anatomical terminology to identify and describe locations of major organs of each system covered. Locate and identify anatomical structures.
- Learn the human structure at cellular, tissue, and system level (endocrine, circulatory, respiratory, digestive, urinary, reproductive systems for Biol 2402), and be able to identify major structures at human models and animal dissections.
- Understand how body systems are interrelated to maintain the homeostasis as a whole. Explain interrelationships among molecular, cellular, tissue, and organ functions in each system. Describe the interdependency and interactions of the systems.
- Learn the concepts and mechanisms of normal physiological processes in endocrine, circulatory, respiratory, digestive, urinary, reproductive systems, and explain how those processes are impaired under abnormal conditions.
- Explain contributions of organs and systems to the maintenance of homeostasis. Identify causes and effects of homeostatic imbalances.
- Perform relevant lab activities or tests to apply the learned physiological principles in professional cases. Describe modern technology and tools used to study anatomy and physiology.
- Discuss the relevance of specific anatomical structures or their related functions to clinical applications to better understand the relationship between structure and function.
- Apply appropriate safety and ethical standards.
- Appropriately utilize laboratory equipment, such as microscopes, dissection tools, general lab ware, physiology data acquisition systems, and virtual simulations.
- Work collaboratively to perform experiments.
- Demonstrate the steps involved in the scientific method. Communicate results of scientific investigations, analyze data and formulate conclusions.
- Use critical thinking and scientific problem-solving skills, including, but not limited to, inferring, integrating, synthesizing, and summarizing, to make decisions, recommendations and predictions.

CORE CURRICULUM Statement of Purpose
Through the Texas Core Curriculum, students gain a foundation of knowledge of human cultures and the physical and natural world, develop principles of personal and social responsibility for living in a diverse world, and advance intellectual and practical skills that are essential for all learning.

Core Objectives for the Sciences:
- 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.
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<tr>
<th>Week of</th>
<th>LECTURE TOPIC</th>
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<th>LAB TOPIC</th>
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<tbody>
<tr>
<td>Jan 21</td>
<td>Martin Luther King Holiday on Monday Classes start on Tuesday Introduction Biological Chemistry Cells: structures, division &amp; transport</td>
<td>1</td>
<td>Safety &amp; Check-in The Language of Anatomy Organ Systems Overview Anatomage- Medical Terminology (Monday sections will do these next week)</td>
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<tr>
<td>Jan 28</td>
<td>Tissues</td>
<td>4</td>
<td>The Microscope The Cell: Anatomy and Division</td>
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<tr>
<td>Feb 4</td>
<td>Tissues continued</td>
<td>4</td>
<td>The Cell: Transport Mechanisms and Cell Permeability Classification of Tissues</td>
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<td>Feb 11</td>
<td>LECTURE EXAM 1 (CHAPTER 1-4) Integumentary System</td>
<td>5</td>
<td>Classification of Tissues (continued) The Integumentary System Anatomage- Liposarcoma (suggested)</td>
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<tr>
<td>Feb 18</td>
<td>Osseous Tissue &amp; Bone Structure</td>
<td>6</td>
<td>LAB PRACTICAL 1</td>
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<td>Feb 25</td>
<td>Skeleton No Class Thursday &amp; Friday (TCCTA Meetings)</td>
<td>7-8</td>
<td>Overview of the Skeleton The Axial Skeleton Anatomage- Skeletal System Identification Anatomage- Bullet through the Skull (suggested) (Thurs &amp; Friday sections will do these next week)</td>
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<td>Mar 4</td>
<td>Articulations</td>
<td>9</td>
<td>The Appendicular Skeleton</td>
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<td>Mar 11</td>
<td>No Class - Spring Break</td>
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<td>No Lab-Spring Break</td>
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<td>Mar 18</td>
<td>LECTURE EXAM 2 (CHAPTER 5-9) Muscle Tissue</td>
<td>10</td>
<td>Articulations and Body Movements Anatomage- Damaged Knee (suggested)</td>
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<tr>
<td>Apr 1</td>
<td>Neural Tissue</td>
<td>12</td>
<td>Gross Anatomy of the Muscular System (continued) Mink Muscle Dissection – bring gloves</td>
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<td>Apr 8</td>
<td>Spinal Cord &amp; Spinal Nerves</td>
<td>13</td>
<td>LAB PRACTICAL 2</td>
</tr>
<tr>
<td>Apr 15</td>
<td>LECTURE EXAM 3 (CHAPTER 10-13) Brain &amp; Cranial Nerves April 17 – LAST DAY TO WITHDRAW No Class Friday - Spring Holiday</td>
<td>14</td>
<td>Histology of Nervous Tissue Gross Anatomy of the Brain and Cranial Nerves The Spinal Cord and Spinal Nerves Brain Dissection - bring gloves</td>
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<tr>
<td>Apr 22</td>
<td>Special Senses</td>
<td>17</td>
<td>Special Senses: Olfaction and Taste Human Reflex Physiology Special Senses: Hearing and Equilibrium Anatomage- Nerve Identification Pain in the Butt (suggested)</td>
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<td>Date</td>
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<td>May 6</td>
<td>Autonomic Nervous System</td>
<td>16</td>
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<td>May 14</td>
<td>Final Exam</td>
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<td>(Chapter 14-17 + Cumulative)</td>
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