Course Syllabus

Course Information

Course Title: Anatomy and Physiology 1
Semester/Year: Summer 1 (2019)
Course Number/Section: BIOL2401-85501
Credit Hours: 6 credit hours (3 for lecture, 3 for lab)
Location and Times:
Mon-Fri Lecture 5:40-7:40PM in Wichita Hall (WH) 279, Mon-Fri Lab 7:30-9:50PM in Sabine Hall (SH) 131
Prerequisite Required:
BIOL 1406 with a grade of "C" or better within the last three years or satisfactory score on the Biology CLEP exam. Students must be college level ready in Reading and Writing.
Important Dates:
Certification Date: June 10; Drop Date: June 25; Final Exam Date: July 3
If unable to complete this course, it is your responsibility to withdraw officially by Tuesday, June 25. The withdrawal request must be received in the Registrar’s Office by the drop date. Failure to do so will result in receiving a performance grade, usually an “F.”

Instructor Information

Instructor: Sin Man (Sabrina) Mak, Ph.D. (Professor of Biology)
Email Address: smak@dcccd.edu
Office Phone: 972-761-6718
Office: WH 225
Office Hours: Mon-Fri 4:30-5:30 PM

Evaluation Procedures

A = 90-100%, B = 80-89%, C = 70-79%, D = 60-69%, less than 60% = F

Course grade is determined as follows:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Points</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture Exams (3 at 100 pts each + 50 pts comprehensive)</td>
<td>350</td>
<td>40%</td>
</tr>
<tr>
<td>Mastering A&amp;P Homework (10 out of 11 – 1 drop at 10 pts each)</td>
<td>100</td>
<td>10%</td>
</tr>
<tr>
<td>Short Lecture Quizzes (6 out of 9 - 3 drops at 10 pts each)</td>
<td>60</td>
<td>7%</td>
</tr>
<tr>
<td>In-Class Group Activities (5 at 10 pts each)</td>
<td>50</td>
<td>6%</td>
</tr>
<tr>
<td>Lab Practicals (3 at 70 pts each)</td>
<td>210</td>
<td>23%</td>
</tr>
<tr>
<td>Pre-Lab Quizzes [in eCampus] (9 out of 10 – 1 drop at 10 pts each)</td>
<td>90</td>
<td>10%</td>
</tr>
<tr>
<td>In-Lab Exercises (8 out of 11 – 3 drops at 5 pts each)</td>
<td>40</td>
<td>4%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>900</td>
<td>100%</td>
</tr>
</tbody>
</table>

Note: This may change at the discretion of the instructor.
Details About Lecture:
Exams:
All sections of BIOL 2401 and 2402 are organized similarly, same number of lecture exams, lab practicals, etc. No make-ups for a missed lecture exam after the fact, unless you have a doctor’s note or have made prior arrangements with me.
Mastering A&P Homework:
These are completed online through Pearson’s Master A&P website. Due dates are listed in “Course Schedule” section. Your work will be checked weekly and points will be added accordingly to your grade. No late homework will be accepted and zero points will be given.

Short Lecture Quizzes:
These are given in the beginning of each lecture class and must be done IN CLASS. No make-ups for a missed short lecture quiz after the fact, unless you have a doctor’s note or have made prior arrangements with me.

In-Class Group Activities:
Group activities, for example case studies, will be given periodically throughout the semester. No make-ups for a in-class group activity after the fact, unless you have a doctor’s note or have made prior arrangements with me.

Details About Labs:
Lab Practicals:
All lab practicals must be done IN LAB as scheduled. No make-ups will be given. Everything you need to know for the lab practicals are given in the In-Lab Exercises.

Pre-lab Quizzes:
These are due before lab starts via eCampus. Late lab quizzes by more than 24hrs are not accepted and zero points will be given.

In-Lab Exercises:
These must be printed out and completed during the time you are actually in lab. If you are absent from lab, you will not receive any points. Prior arrangements can be made to attend another section’s lab. Be sure to discuss with me at least 3 days before so we can make proper arrangements.

Be sure to bookmark this website for lab (http://delrio.dcccd.edu/jreynolds/A&P/index.html). It has links to lab practical reviews, graphics, and lab handouts with objectives.

Required Materials

The Mastering A&P homework system is REQUIRED (An online access code should be included with purchase of NEW textbook, or it can be purchased as stand-alone through Pearson’s website if you prefer to buy used textbook).

If you already bought an access code before, you may not need to purchase another code (One code should be good for 2 semesters, but if you have skipped a semester, it may say that your code has expired. You will need to contact Pearson personally to resolve the issue.)

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. The COURSE CODE ID for this class is: SMAK2401SUA2019

**WE ARE USING CUSTOM SHORTER VERSIONS THAT HAVE ELIMINATED LOTS OF EXERCISES THAT WE DO NOT USE**—cheaper than the full lab book (available only at Richland College bookstore in Sabine Hall; blue-green cover for 2401 and white-purple cover for 2402).

### Core Curriculum Intellectual Competencies

**READING:** the ability to analyze and interpret a variety of printed materials - books, documents, and articles - above 12th grade level.

**WRITING:** the ability to produce clear, correct and coherent prose adapted to purpose, occasion and audience - above 12th grade level.

**CRITICAL THINKING:** think and analyze at a critical level.

**COMPUTER LITERACY:** understand our technological society, use computer based technology in communication, solving problems, acquiring information.

### 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.

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. 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 section during the lab practical time period.

You are expected to be in class every period. Missing a 2 hour daily lab is REALLY going to affect your lab grade, so try to go to another section to make the lab up after prior arrangements with me.

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 and turn your cellphones to vibrate, and please leave the room as quietly as possible to talk (ONLY if absolutely necessary to talk at that moment.) **During an exam or lab practical, all phones will be put away and turned off.** No text messaging during classtime, please.
- **FOOD AND DRINK IN THE CLASSROOM?** You may bring in snacks 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.

Academic Misconduct Regarding Exams & Lab Practicals

Cheating on exams 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 restroom. 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 be given a ZERO for the designated exam/lab practical.

Student Academic Progress

Students are encouraged to discuss academic goals and degree completion with their instructors. Specific advising is available throughout the semester from academic advisors and career specialists. Check Richland College Admissions [http://richlandcollege.edu/admissions] and Richland College Advising [http://richlandcollege.edu/advising] for more details.

Institutional Policies

Institutional Policies relating to this course can be accessed from the following link: Institutional Policies [www.richlandcollege.edu/syllabipolicies]

Richland College Quality Enhancement Plan (Learning to learn)

DEVELOPING LEARNING POWER: Richland College is piloting its Quality Enhancement Plan (QEP) in select classes. The QEP provides techniques, practices, and tools to help students develop the habits, traits or behaviors needed to be effective and successful lifelong learners in college and in life. For more information, please check QEP 2013 (http://www.richlandcollege.edu/qep)

Syllabus Change Disclaimer

The instructor reserves the right to amend a syllabus as necessary.
<table>
<thead>
<tr>
<th>Date</th>
<th>Lecture (5:40 - 7:40 PM)</th>
<th>Ch</th>
<th>Lecture Quiz</th>
<th>MAP HW</th>
<th>Lab (7:50 - 9:50 PM)</th>
<th>Pre-Lab Quiz</th>
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<tbody>
<tr>
<td>6/6 R</td>
<td>Introduction to A&amp;P</td>
<td>1</td>
<td></td>
<td></td>
<td>Lab Safety, Language of Anatomy, Organ System Overview</td>
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<tr>
<td>6/7 F</td>
<td>Biochemistry, Cells</td>
<td>2, 3</td>
<td></td>
<td></td>
<td>Microscope, Cell Anatomy and Division</td>
<td>Pre-Lab Quiz 1</td>
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<tr>
<td>6/10 M</td>
<td>Cells (continued)</td>
<td>3</td>
<td>LQ 1 (Ch 1-2)</td>
<td>Cell Transport and Permeability</td>
<td>Pre-Lab Quiz 2</td>
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<tr>
<td>6/11 T</td>
<td>Tissues</td>
<td>4</td>
<td>Ch 3 Cell</td>
<td>Classification of Tissues and Integumentary System</td>
<td>Pre-Lab Quiz 3</td>
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<tr>
<td>6/12 W</td>
<td>Tissues (continued)</td>
<td>4</td>
<td></td>
<td></td>
<td>LAB PRACTICAL 1</td>
<td></td>
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<tr>
<td>6/13 R</td>
<td>Integumentary System</td>
<td>5</td>
<td>LQ 2 (Ch 4)</td>
<td>Ch 4 Tissues</td>
<td>Skeleton Overview, Axial Skeleton &amp; Fetal Skeleton</td>
<td>Pre-Lab Quiz 4</td>
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<td>6/14 F</td>
<td>Skeletal System</td>
<td>6</td>
<td>LQ 3 (Ch 5)</td>
<td>Ch 5 Skin</td>
<td>Appendicular Skeleton</td>
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<tr>
<td>6/17 M</td>
<td>LECTURE EXAM 1 (Ch 1-5)</td>
<td>7</td>
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<td>Articulations, Microscopic Anatomy of Muscles</td>
<td>Pre-Lab Quiz 5</td>
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<tr>
<td>6/18 T</td>
<td>Spine and Joints</td>
<td>9</td>
<td>LQ 4 (Ch 6)</td>
<td>Ch 6 Skeletal System</td>
<td>Gross Anatomy of Muscular System (Human)</td>
<td>Pre-Lab Quiz 6</td>
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<tr>
<td>6/19 W</td>
<td>Muscle Tissues</td>
<td>10</td>
<td>LQ 5 (Ch 9)</td>
<td>Ch 9 Joints</td>
<td>Gross Anatomy of Muscular System (Mink Dissection) [GLOVES!]</td>
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<tr>
<td>6/20 R</td>
<td>Muscle Tissues (continued)</td>
<td>10</td>
<td></td>
<td></td>
<td>LAB PRACTICAL 2</td>
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<tr>
<td>6/21 F</td>
<td>Nervous Tissue</td>
<td>12</td>
<td>LQ 6 (Ch 10)</td>
<td>Ch 10 Muscles</td>
<td>Nervous Tissue, Gross Anatomy of Brain and Cranial Nerves</td>
<td>Pre-Lab Quiz 7</td>
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<tr>
<td>6/24 M</td>
<td>Nervous Tissue (continued)</td>
<td>12</td>
<td></td>
<td></td>
<td>Brain and Cranial Nerves (Sheep Brain Dissection) [GLOVES!]</td>
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<tr>
<td>6/25 T</td>
<td>LECTURE EXAM 2 (Ch 6-12)</td>
<td>14</td>
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<td>LAB PRACTICAL 3</td>
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<tr>
<td>6/26 W</td>
<td>Brain and Cranial Nerves</td>
<td>14</td>
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<td></td>
<td>Anatomy of Eye and Visual Tests (Cow Eye Dissection) [GLOVES!]</td>
<td>Pre-Lab Quiz 8</td>
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<tr>
<td>6/27 R</td>
<td>Spinal Cord &amp; Spinal Nerves, Sensory Pathways &amp; Somatic Nervous System</td>
<td>13, 15</td>
<td>LQ 7 (Ch14)</td>
<td>Ch 14 Brain &amp; CN Olfaction and Taste, Hearing and Equilibrium</td>
<td>Pre-Lab Quiz 9</td>
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<tr>
<td>6/28 F</td>
<td>Special Senses</td>
<td>17</td>
<td>LQ 8 (Ch 13,15)</td>
<td>Ch 13 Spinal Cord</td>
<td>LAB PRACTICAL 3</td>
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<tr>
<td>7/1 M</td>
<td>Special Senses (continued)</td>
<td>17</td>
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<td></td>
<td>No Lab</td>
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<tr>
<td>7/2 T</td>
<td>Autonomic Nervous System</td>
<td>16</td>
<td>LQ 9 (Ch 17)</td>
<td>Ch 17 Special Senses</td>
<td>No Lab</td>
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<tr>
<td>7/3 W</td>
<td>FINAL EXAM (Ch 13-17 + comprehensive)</td>
<td>17</td>
<td></td>
<td></td>
<td>No Lab</td>
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</tbody>
</table>