RICHLAND COLLEGE DEPARTMENT OF BIOLOGY  
School of Mathematics, Science, and Health Professions  
Course Syllabus  
BIOL 2402 Anatomy and Physiology II  
4 credit hours (3 lec/3lab)

Sin Man (Sabrina) Mak, Ph.D.  
Professor of Biology

Semester and Year: Spring 2019  
Section: 83501  
Class time and days:  
Lecture: Mon 5:40 – 8:25PM  
Lab: Wed 5:40 – 8:25PM  
Room:  
Lecture: WH149  
Lab: SH133  
Instructor: Sin Man (Sabrina) Mak  
Contact Info: smak@dcccd.edu, (972) 761-6718  
Office: WH225  
Office hours: Mon 12:00 – 2:00PM, Tues 2:00 – 3:00PM,  
Wed 11:30AM – 12:30PM, Fri 11:30AM – 12:30PM  
Last date to withdraw: Wednesday, April 17  
Final Exam Day/time: Monday, May 13 @ 5:40 – 7:30PM

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>Evaluation Category</th>
<th>Points</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture Exams (4 at 100 pts each + 50 cumulative final)</td>
<td>450</td>
<td>45%</td>
</tr>
<tr>
<td>Lab Practicals (3 at 70 pts each)</td>
<td>210</td>
<td>21%</td>
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<tr>
<td>Pre-lab Quizzes [in eCampus]</td>
<td>90</td>
<td>9%</td>
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<tr>
<td>(9 out of 10 - 1 drop at 10 pts each)</td>
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<tr>
<td>In-Lab Exercises (8 out of 10 - 2 drops at 5 pts each)</td>
<td>40</td>
<td>4%</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 7 - 1 drop at 10 pts each)</td>
<td>60</td>
<td>6%</td>
</tr>
<tr>
<td>In-Class Group Activities (5 at 10 pts each)</td>
<td>50</td>
<td>5%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1000</td>
<td>100%</td>
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</tbody>
</table>

THE INSTRUCTOR RESERVES THE RIGHT TO AMEND THIS SYLLABUS AS NECESSARY.

- **Note about Labs:** Pre-lab Quizzes are due before lab starts via eCampus. In-Lab exercises must be done “in lab”. If you are not in lab that week, you will lose those points.  
  *There are no make-ups for a missed Lab Practical.*  
  **Dress code for lab:** Full-toed shoes and clothing to the knee are required at ALL TIMES in the labs

- **Note about Exams:** All of the sections of Biol 2401-2402 are organized the same way, same number of lecture exams, lab practicals, etc. **No make-ups for a missed Exam after the fact, unless you have a doctor’s note.**

- **Note about Mastering A&P Homework:** They are due on **THURSDAYS** (by 11:59PM) according to the dates listed on the course schedule. If it is late, points will be taken off. If it is more than **3 days late**, there will be no credit for the assignment.
• **Note about In-Class Group Activities:** We will do some group activities in class (ex: case studies). If you are absent for class, **you are responsible for contacting me via email** or in person during my office hours with a legitimate reason for your absence in order to make up the activity. This must be done within 1 week from the date that the activity was originally assigned. You will complete the activity on your own. After 1 week, the activity cannot be made up.

**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 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 okay to attend their lab.

If you are unable to complete this course, it is your responsibility to withdraw formally—by **Wednesday, April 17, 2019.** 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. You can buy an access code at [www.masteringaandp.com](http://www.masteringaandp.com), if, for some reason, you did not use MAP in the first A&P 2401. **If you had access in 2401, DO NOT BUY ANOTHER CODE.**

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/](https://www.pearsonmylabandmastering.com/northamerica/masteringaandp/), oddly enough).


**WE ARE USING CUSTOM SHORTER VERSIONS THAT HAVE ELIMINATED LOTS OF EXERCISES THAT WE DO NOT USE**—cheaper than the full lab book.

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**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](http://masteringaandp.com) --register for the homework system, by using the COURSE ID **SMAK2402BS19** You can also buy an access code there, if, for some reason, you did not use MAP in the first A&P 2401. **If you had access in 2401, DO NOT BUY ANOTHER CODE.**

**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](http://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.

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 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 an exam/lab practical or telling someone what is on an exam/lab practical
- waiting out in the hallway when people have just taken the exam to hear them discuss the lecture/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
- getting the answer key before the test
- looking at/reading from your phone during lecture exam/lab practical

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 receive a ZERO on the lecture exam/lab practical.

College Policies and Procedures:
Institutional Policies relating to this course can be accessed from the following link
www.richlandcollege.edu/syllabipolicies
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, reproductive, digestive, 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.

RICHLAND COLLEGE’S 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)
<table>
<thead>
<tr>
<th>Mon</th>
<th>Lecture (5:40-8:25)</th>
<th>Ch</th>
<th>Lecture Quiz</th>
<th>Wed</th>
<th>Lab (5:40-8:25)</th>
<th>Pre-Lab Quiz</th>
<th>Master A&amp;P HW (Due on Thurs)</th>
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<tbody>
<tr>
<td>1/21</td>
<td>No Classes</td>
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<td>1/23</td>
<td>Endocrine System Lecture (Ch 18), Lab Safety and Check-in</td>
<td>Ch 19 Blood</td>
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<td>1/28</td>
<td>Blood</td>
<td>19</td>
<td>LQ 1 (Ch 18)</td>
<td>1/30</td>
<td>Lab 1-Anatomy of Endocrine Glands</td>
<td>Pre-Lab Quiz 1</td>
<td>Ch 20 Heart</td>
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<td>Heart</td>
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<td>LQ 2 (Ch 19)</td>
<td>2/6</td>
<td>Lab 2-Blood and Anatomy of the Heart Pig Heart Dissection [BRING GLOVES!]</td>
<td>Pre-Lab Quiz 2</td>
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<td>2/11</td>
<td>Lecture Exam I (Chp 18-20)</td>
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<td>2/13</td>
<td>Lab 3-Conduction System of Heart and EKG, Cardiovascular Physiology</td>
<td>Pre-Lab Quiz 3</td>
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<td>2/18</td>
<td>Blood Vessels &amp; Circulation</td>
<td>21</td>
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<td>2/20</td>
<td>Lab 4-Anatomy of Blood Vessels Mink Dissection [BRING GLOVES!]</td>
<td>Pre-Lab Quiz 4</td>
<td>Ch 21 Circulation</td>
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<td>2/25</td>
<td>Lymphatic System &amp; Immunity</td>
<td>22</td>
<td>LQ 3 (Ch 21)</td>
<td>2/27</td>
<td>Review Day</td>
<td>Ch 22 Lymphatic</td>
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<td>3/4</td>
<td>Respiratory System</td>
<td>23</td>
<td>LQ 4 (Ch 22)</td>
<td>3/6</td>
<td>Lab Practical I</td>
<td>Ch 23 Respiratory</td>
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<td>3/11</td>
<td>No Classes (Spring Break)</td>
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<td>3/13</td>
<td>No Lab (Spring Break)</td>
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<td>3/18</td>
<td>Lecture Exam II (Chp 21-23)</td>
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<td>3/20</td>
<td>Lab 5-Lymphatic System, Anatomy of Respiratory System and Physiology</td>
<td>Pre-Lab Quiz 5</td>
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<td>3/25</td>
<td>Digestive System</td>
<td>24</td>
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<td>3/27</td>
<td>Lab 6-Anatomy of Digestive System Pig Kidney Dissection [BRING GLOVES!]</td>
<td>Pre-Lab Quiz 6</td>
<td>Ch 24 Digestive</td>
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<td>4/1</td>
<td>Metabolism</td>
<td>25</td>
<td>LQ 5 (Ch 24)</td>
<td>4/3</td>
<td>Lab Practical II</td>
<td>Ch 25 Metabolism</td>
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<td>4/8</td>
<td>Urinary System</td>
<td>26</td>
<td>LQ 6 (Ch 25)</td>
<td>4/10</td>
<td>Lab 7-Anatomy of Urinary System Pig Kidney Dissection [BRING GLOVES!]</td>
<td>Pre-Lab Quiz 7</td>
<td>Ch 26 Urinary</td>
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<td>4/15</td>
<td>Lecture Exam III (Chp 24-26)</td>
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<td>4/17</td>
<td>Lab 8-Urinalysis</td>
<td>Pre-Lab Quiz 8</td>
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<td>4/22</td>
<td>Fluid and Electrolytes</td>
<td>27</td>
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<td>4/24</td>
<td>Lab 9-Anatomy of Reproductive System, Physiology of Reproduction</td>
<td>Pre-Lab Quiz 9</td>
<td>Ch 27 Fluid</td>
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<td>4/29</td>
<td>Reproductive System</td>
<td>28</td>
<td>LQ 7 (Ch 27)</td>
<td>5/1</td>
<td>Lab 10-Embryonic Development, Principles of Heredity Mink Dissection [BRING GLOVES!]</td>
<td>Pre-Lab Quiz 10</td>
<td>Ch 28 Reproductive</td>
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<tr>
<td>5/6</td>
<td>Development and Inheritance</td>
<td>29</td>
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<td>5/8</td>
<td>Lab Practical III</td>
<td>Ch 29 Development</td>
<td></td>
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<tr>
<td>5/13</td>
<td>Final Exam (Chp 27-29 + cumulative)</td>
<td>-</td>
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</tbody>
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* Mastering A&P homework (11 total)

*Remember Pre-Lab Quizzes are due BEFORE lab session that day through eCampus.*