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

Mrudula Ganga Ph. D

Semester and Year: Spring 2019
Section: 83003
Class time and days: Lecture: M/W 12:45-2.05 pm Lab: F 11.15-2.05pm
Room: Lecture: WH 160 Lab: SH133
Instructor: Mrudula Ganga, Ph.D.
Contact Info: mganga@dcccd.edu Phone: 972-238-6012
Office: SH261
Last date to withdraw: April 17th, Wednesday
Final Exam Day/time: Wed, 12:20PM 02:10PM May 15 2019

Evaluation Procedures:
3 Lecture exams (each 100 pts) 300 pts
Final Exam (cumulative) 200 pts
Pre-labs 100 pts
3 Lab practicals (each 80 pts) 240 pts
Anatomage&Dissections 30 pts
Mastering Assignments 130 pts
TOTAL 1000 pts

Scale Average:
A= 90-100 (900 – 1000 pts), B=80 – 89 (800 – 899 pts), C=70 – 79,700 – 799 pts), D=60 – 69(600 – 699 pts)
F=< 60 (599 or less)
   • Final Exam: All of the sections of Biol 2401-2402 are organized the same way, same number of lecture tests, lab practicals, etc., including a cumulative final exam.

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 practical 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. 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:
Lab Attire: Students entering a lab setting should wear shoes that enclose the entire foot and clothing that covers the body (at least) to the knee.
Additionally eye protection, apron or lab coat may be required compatible with risk from chemical spills or microorganisms.

The Mastering A&P homework system is REQUIRED (comes w/ either NEW lecture text OR NEW lab text 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).


Get into Mastering A&P with http://masteringaandp.com --register for the homework system, by using the COURSE ID course ID : MAPGANGA83003

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.

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.
- 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.
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 a 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. |

**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/QEP2013)

**Academic Progress:** Students are encouraged to discuss academic goals and degree completion with their instructors. Specific advising is available throughout the semester. Check [www.richlandcollege.edu/admissions/process.php](http://www.richlandcollege.edu/admissions/process.php) for more details.

**College Policies and Procedures:**

For Institution Policies, please refer students to the Richland website [www.richlandcollege.edu](http://www.richlandcollege.edu) (Current Students) or to [www.richlandcollege.edu/syllabusinfo/syllabilInformation.pdf](http://www.richlandcollege.edu/syllabusinfo/syllabilInformation.pdf)

**Catalog Course Description**

**Course Description:** This course 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. This is a transferable course intended for those seeking to complete a Bachelor's Degree.

**Pre-requisites:** BIOL 1406 or SCIT 1407. 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, cat dissections will be a major component of the course.

- to understand the scope of the course and to develop a basic working vocabulary applicable to the study of anatomy and physiology.
- to understand the concept of physiological homeostasis and apply homeostatic mechanisms to various processes that occur in the body.
- to demonstrate knowledge of the nature and fundamental structure of all matter and apply that knowledge to the structure and interactions between chemical substances found in biological matter.
- To demonstrate knowledge of what cells are, how they function, how they synthesize proteins, and how they divide.
- to survey the fundamental tissue groups that combine to form the human body, to understand how tissues are classified as membranes, and to understand the formation of endocrine and exocrine glands.
- to demonstrate knowledge of the anatomy and physiology of the integumentary system.
- to demonstrate knowledge anatomy and physiology of the skeletal system.
- to demonstrate knowledge of the physiology of muscle contractions and become familiar with the names, locations, and functions of the major muscles.
- to demonstrate knowledge of the organization of the nervous system and the physiology of nerve impulse conduction.

Core Curriculum Statement

Intellectual Competencies:

1. **Reading**: the ability to analyze and interpret a variety of printed materials—books, documents, and articles—above the 12th grade level.
2. **Writing**: the ability to produce clear, correct and coherent prose adapted to purpose, occasion, and audience—above the 12th grade level.
3. **Speaking**: ability to communicate orally in clear, coherent, and persuasive language appropriate to purpose, occasion, and audience—above the 12th grade level.
4. **Listening**: analyze and interpret various forms of spoken communication, possess sufficient literacy skills of writing, reading—above the 12th grade level.
5. **Critical Thinking**: think and analyze at a critical level.
6. **Computer Literacy**: understand our technological society, use computer-based technology in communication, solving problems, and acquiring information.
<table>
<thead>
<tr>
<th>WEEK</th>
<th>LECTURE TOPIC</th>
<th>CH.</th>
<th>LAB TOPIC</th>
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| Jan 21 | (Classes start on Jan 22)-No lecture on Monday    | 18  | Safety & Check-in  
Endocrine Lecture                                                                 |
|        | Endocrine System                                   |     |                                                                           |
| Jan 28 | Blood                                              | 19  | Functional Anatomy of the Endocrine Glands  
Anatomage-Endocrine ID Exercise  
(Suggested: Hyperthyroidism case)                           |
| Feb 4  | Heart                                              | 20  | Blood  
Anatomy of the Heart  
(Pig Heart Dissection – Bring Gloves)                                           |
| Feb 11 | Blood Vessels & Circulation                        | 21  | Conduction System of the Heart and Electrocardiography  
Human Cardiovascular Physiology  
Anatomy of Blood Vessels                                                   |
| Feb 18 | LEC- EXAM 1 (Ch 18-20)-Feb 18th-Mon Blood Vessels  | 21  | Anatomy of Blood Vessels Cont.  
Anatomage-Vessel ID Exercise  
Mink Dissection (Endocrine, Blood Vessels) – Bring gloves |
| Feb 25 | Lymphatic & Immunity                               | 22  | NO LABS this week                                                        |
|        | Respiratory System                                |     |                                                                           |
|        | No Classes Thurs/Fri (faculty meetings)            |     |                                                                           |
| Mar 4  | Respiratory System                                 | 23  | LAB-PRACTICAL 1(Mar 8th-Fri)                                              |
| Mar 11 | No Class - Spring Break                            | 24  | No Lab - Spring Break                                                     |
| Mar 18 | Digestive System                                  |     | Lymphatic System  
Anatomy of the Respiratory System  
Respiratory System Physiology  
Anatomage Respiratory ID Exercise  
(Suggested: Respiratory Case)                                               |
|        | LEC-EXAM 2 (Ch 21-23)-Mar 20th-Wed Digestive System|     |                                                                           |
| Mar 25 | Digestive System                                  | 24  | Anatomy of Digestive System  
Anatomage Digestive ID Exercise  
(Suggested: Pancreas Cancer case study)  
Mink Dissection (Respiratory & Digestive) – Bring Gloves                  |
| Apr 1  | Metabolism                                         |     | LAB-PRACTICAL 2 (April 5th-Fri)                                           |
| Apr 8  | Urinary                                            | 25  | Anatomy of the Urinary System  
Anatomage Urinary ID Exercise  
Urinalysis  
(Pig Kidney Dissection – Bring Gloves)                                       |
| Apr 15 | Fluid Electrolyte Balance  
April 17 Last Day to Withdraw (W)  
No Class Friday Spring Holiday | 26  | No Classes Friday - Spring Holiday (NO LAB Friday) |
| Apr 22 | LEC- EXAM 3 (Ch 24-26)-April 22nd-Mon Fluid and   | 26  | Anatomy of the Reproductive System  
Physiology of Reproduction  
Anatomage- Genitourinary ID Exercise                                          |
|        | Electrolyte balance Reproductive System            | 27  |                                                                           |
| Apr 29 | Reproductive System                                | 27  | Survey of Embryonic Development  
Principles of Heredity  
Mink Dissection (Urinary, Reproductive) – Bring Gloves  
(Suggested: Conjoined Twin Cancer case study)                                 |
| May 6  | Development & Inheritance                          | 28  | LAB-PRACTICAL 3 (May10th- Fri)                                             |
| May 13 | FINAL EXAM (Ch 27-29 + Cumulative)                 |     |                                                                           |
|        | Wed, 12:20PM 02:10PM May 15 2019                   |     |                                                                           |