Anatomy and Physiology II is the second part of a two part course sequence. It is a study of the structure and function of the human body including the following systems: endocrine, cardiovascular, immune, lymphatic, respiratory, digestive (including nutrition), urinary (including fluid and electrolyte balance), and reproductive (including human development and genetics). Emphasis is on interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis.

Prerequisites:
Course or Test: BIOL 2401, Minimum Grade of D, May not be taken concurrently. OR Course or Test: BIOL 2301, Minimum Grade of D, May not be taken concurrently. OR Course or Test: BIOL 2403, Minimum Grade of D, May not be taken concurrently.

Learning Outcomes
Upon successful completion of this course, students will:
1. Use anatomical terminology to identify and describe locations of major organs of each system covered.
2. Explain interrelationships among molecular, cellular, tissue, and organ functions in each system.
3. Describe the interdependency and interactions of the systems.
4. Explain contributions of organs and systems to the maintenance of homeostasis.
5. Identify causes and effects of homeostatic imbalances.
6. Describe modern technology and tools used to study anatomy and physiology.

Learning Objectives for Core Curriculum Requirements:
Students taking this course will learn about the different organs, functions and mechanism in circulatory system, respiratory system, endocrine system and reproduction. In addition, coordination
between the different organs to have a functional organism will be discussed. Students interested in pursuing their careers in medical, dental, biomedical sciences, allied health courses and graduate studies in biology will also benefit.

Objectives: Critical Thinking, Communication, Empirical & Quantitative Skills, Teamwork

Critical thinking: is a way of examining and exploring issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion.

Communication:

**Written communication** is the development and expression of ideas in writing. Written communication involves learning to work in many genres and styles. It can involve working with many different writing technologies, and mixing texts, data, and images. Written communication abilities develop through iterative experiences across the curriculum.

**Oral communication** is a prepared, purposeful presentation designed to increase knowledge, to foster understanding, or to promote change in the listeners' attitudes, values, beliefs, or behaviors.

**Empirical and Quantitative Skills:** Quantitative Literacy (QL) – also known as Numeracy or Quantitative Reasoning (QR) – is a "habit of mind," competency, and comfort in working with numerical data. Individuals with strong QL skills possess the ability to reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations. They understand and can create sophisticated arguments supported by quantitative evidence and they can clearly communicate those arguments in a variety of formats (using words, tables, graphs, mathematical equations, etc., as appropriate).

**Teamwork:** is the ability of individuals to work together to accomplish a task or produce a product in a way that is respectful and values the strengths of the members of the team.

AND

1 hour of the core requirement for Integrative and Experiential Learning Courses (up to 3 hours from science labs) in this category involve interdisciplinary topics or approaches and/or learning through direct experience. Science Labs (maximum 3 hours; offered in conjunction with science courses listed in the Life and Physical Sciences component area)

The direct experience in these labs will include writing lab reports, dissections, experiments and observations using equipment such as the microscope. This will allow the student to learn to use and practice using scientific equipment.

**Grading Policies**

Your course grade will be determined as follows:

- Participation (Daily)  15 pts
- Quiz (4)   10 pts
- Exams (4)  50 pts
- Laboratory grade  25 pts
- Total    100 pts

Participation will be assessed based on a daily quiz at the end of each class. This daily quiz will have questions from the chapter assigned for that day or posted online.

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**Clickers should be used for the daily quiz. You can use the device from Turning Technology model QT or NXT. Please make sure you have registered the clickers to this course BY Jan 22nd 2019.**
Exams and quizzes will have multiple choice, true or false, fill in the blanks, and match the following questions.
The point range for each grade is given below:

<table>
<thead>
<tr>
<th>Point Range</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-100</td>
<td>A</td>
</tr>
<tr>
<td>80-89</td>
<td>B</td>
</tr>
<tr>
<td>70-79</td>
<td>C</td>
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<tr>
<td>60-69</td>
<td>D</td>
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<tr>
<td>59 or below</td>
<td>F</td>
</tr>
</tbody>
</table>

Quizzes and exams will be online. Quizzes will be open on the day of the quiz and the exams will be open during the class hours, on the day of the exam, according to the syllabus. You have to download Respondus lockdown browser in your computer to take the tests online. Grades are based on the performance ONLY. This is measured simply and numerically.

Other Course Information:

a). Contacting the Professor:
You can contact me during the office hours. Please email me before coming so I will be better prepared to answer your questions and our time is efficiently utilized.

b) Please make sure you watch for any announcements that are posted in Blackboard and the in class.

c) Policy for make up exams/quiz:

- If you know you will be absent for a test, you must contact me at least one week in advance to make arrangements to take the test at another time.
- If you can provide written documentation of a medical or other emergency, on the day of the test, I will consider a make-up test.
- A grade of zero will be entered for missed tests.
- PARTICIPATION QUIZ CAN BE TAKEN ONLY IN CLASS. No make up chances will be given for missed participation quizzes.

d) Policy on classroom behavior: During the lecture, I expect the following:

- 1. Turn off all electronic devices except laptops, if you do not have a hard copy of the powerpoint.
- 2. Focus on the lecture fully and be attentive.
3. Maintain high level of discipline.

ANY STUDENT WHO IS DISTRACTED OR DISTRACTS OTHER STUDENTS WILL BE ASKED TO STEP OUT OF THE CLASS

e) Some of the chapters will be posted online and there will be participation quiz for those chapters either when we meet in class the next time or will be posted online. Instructions will be given in class regarding this.

Suggestions for success:
Record material given in the lecture. It may include material that is not in the powerpoint presentation.
Review the notes on the same day of the lecture.
Read through the chapter before you come to the class.
Attend all the quizzes and exams and participate in the daily participation quiz.

University calendar: Spring 2019 Term (January 14 – May 9)
Oct. 29 (Mon.) Registration Begins Jan. 9 (Wed.)
Payment Due Last day to join a waitlist Jan. 11 (Fri.)
Last day to withdraw (drop all classes) and receive a 100% refund Jan. 14 (Mon.) Spring classes begin Jan. 17 (Thurs.)
Last day to add or register for Spring classes Jan. 18 (Fri.)
Last day to withdraw (drop all classes) and receive an 80% refund Jan. 21 (Mon.)
Martin Luther King Jr. Holiday. No classes.
Jan. 28 (Mon.) Last day to withdraw (drop all classes) and receive a 70% refund Feb. 4 (Mon.)
Last day to withdraw (drop all classes) and receive a 50% refund Jan. 30 (Wed.)
Census Day (last day to drop without it appearing on the transcript) Feb. 11 (Mon.)
Last day to withdraw (drop all Spring classes) and receive a 25% refund Mar. 11 – Mar. 16 (Mon. – Sat.)
Spring Break. No classes.
April 10 (Wed.) Last day to drop a class (grade of DR) or withdraw (grade of W)
April 19 – April 20 (Fri. – Sat.) Easter Holiday. No classes.
May 2 (Thurs.) Study Day. No classes.
May 3 – 9 (Fri. – Thurs.) Final Exams
May 9 (Thurs.) Spring classes end; Official last day of the term
May 10 - May 11 (Fri. – Sat.) Commencement Exercises
May 13 (Mon.) Grades Due at 3 p.m.
### Calendar of Activities (Tentative)

**Anatomy and Physiology BIOL 2402 02**  
**Spring 2019**

**Tuesday and Thursday 8:00 AM – 9:15 AM, Room SCNE 2.102**

<table>
<thead>
<tr>
<th>Dates</th>
<th>Chapter</th>
<th>Topic</th>
<th>Quiz/Exam</th>
<th>Chapters for quiz/exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 15th</td>
<td>16</td>
<td>Syllabus, Endocrine System</td>
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<tr>
<td>Jan 17th</td>
<td>16</td>
<td>Endocrine System (continued)</td>
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<tr>
<td>Jan 22nd</td>
<td>16 &amp; 17</td>
<td>Endocrine System (continued), Blood</td>
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<tr>
<td>Jan 24th</td>
<td>17</td>
<td>Blood (continued)</td>
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<tr>
<td>Jan 29th</td>
<td>17</td>
<td>Cardio vascular system</td>
<td>Quiz 1</td>
<td>16,17</td>
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<tr>
<td>Jan 31st</td>
<td></td>
<td>No lecture</td>
<td>Exam I</td>
<td>16,17,18,19</td>
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<tr>
<td>Feb 5th</td>
<td>19</td>
<td>Blood vessels</td>
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<tr>
<td>Feb 7th</td>
<td></td>
<td>No lecture</td>
<td>Exam I</td>
<td>16,17,18,19</td>
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<tr>
<td>Feb 12th</td>
<td>20</td>
<td>Lymphatic System</td>
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<tr>
<td>Feb 14th</td>
<td>20</td>
<td>Lymphatic System (continued)</td>
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<td>Feb 19th</td>
<td>21</td>
<td>Immune System</td>
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<tr>
<td>Feb 21st</td>
<td>21</td>
<td>Immune System (continued)</td>
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<tr>
<td>Feb 26th</td>
<td>22</td>
<td>Respiratory System</td>
<td>Quiz 2</td>
<td>20,21</td>
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<tr>
<td>Feb 28th</td>
<td>22</td>
<td>Respiratory System (continued)</td>
<td></td>
<td></td>
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<tr>
<td>Mar 5th</td>
<td></td>
<td>No lecture</td>
<td>Exam II</td>
<td>20,21,22</td>
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<tr>
<td>Mar 7th</td>
<td>23</td>
<td>Digestive System</td>
<td></td>
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<tr>
<td>Mar 9th</td>
<td>23</td>
<td>Digestive System (continued)</td>
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<tr>
<td>Mar 21st</td>
<td>24</td>
<td>Nutrition, Metabolism and Body Temperature Regulation</td>
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<tr>
<td>Mar 26th</td>
<td>24</td>
<td>Nutrition, metabolism and Body Temperature Regulation (continued)</td>
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<tr>
<td>Mar 28th</td>
<td>26</td>
<td>Fluid, Electrolyte and Acid Base Balance</td>
<td>Quiz 3</td>
<td>23, 24</td>
</tr>
<tr>
<td>Apr 2nd</td>
<td>25</td>
<td>Urinary System</td>
<td></td>
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<tr>
<td>Apr 4th</td>
<td>25</td>
<td>Urinary System (continued)</td>
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<tr>
<td>Apr 9th</td>
<td></td>
<td>No lecture</td>
<td>Exam III</td>
<td>23, 24, 25, 26</td>
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<tr>
<td>Apr 11th</td>
<td>27</td>
<td>Reproductive System</td>
<td></td>
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<tr>
<td>Apr 16th</td>
<td>27</td>
<td>Reproductive System (continued)</td>
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<tr>
<td>Apr 18th</td>
<td>28</td>
<td>Pregnancy and Human Development</td>
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<tr>
<td>Apr 23rd</td>
<td>28</td>
<td>Pregnancy and Human Development (continued)</td>
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<tr>
<td>Apr 25th</td>
<td>29</td>
<td>Heredity</td>
<td></td>
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<tr>
<td>Apr 30th</td>
<td>29</td>
<td>Heredity (continued)</td>
<td>Quiz 4</td>
<td>27,28</td>
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</tbody>
</table>

**May 7th**  
Final Examination  8:00 - 9:45PM  Comprehensive (all chapters)
UTRGV Policy Statements

STUDENTS WITH DISABILITIES:
If you have a documented disability (physical, psychological, learning, or other disability which affects your academic performance) and would like to receive academic accommodations, please inform your instructor and contact Student Accessibility Services to schedule an appointment to initiate services. It is recommended that you schedule an appointment with Student Accessibility Services before classes start. However, accommodations can be provided at any time. Brownsville Campus: Student Accessibility Services is located in Cortez Hall Room 129 and can be contacted by phone at (956) 882-7374 (Voice) or via email at accessibility@utrgv.edu. Edinburg Campus: Student Accessibility Services is located in 108 University Center and can be contacted by phone at (956) 665-7005 (Voice), (956) 665-3840 (Fax), or via email at accessibility@utrgv.edu.

MANDATORY COURSE EVALUATION PERIOD:
Students are required to complete an ONLINE evaluation of this course, accessed through your UTRGV account (http://my.utrgv.edu); you will be contacted through email with further instructions. Email notifications will be sent to students when online evaluations are open.

ATTENDANCE:
Students are expected to attend all scheduled classes and may be dropped from the course for excessive absences. UTRGV’s attendance policy excuses students from attending class if they are participating in officially sponsored university activities, such as athletics; for observance of religious holy days; or for military service. Students should contact the instructor in advance of the excused absence and arrange to make up missed work or examinations.

SCHOLASTIC INTEGRITY:
As members of a community dedicated to Honesty, Integrity and Respect, students are reminded that those who engage in scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and expulsion from the University. Scholastic dishonesty includes but is not limited to: cheating, plagiarism, and collusion; 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. Since scholastic dishonesty harms the individual, all students and the integrity of the University, policies on scholastic dishonesty will be strictly enforced (Board of Regents Rules and Regulations and UTRGV Academic Integrity Guidelines). All scholastic dishonesty incidents will be reported to the Dean of Students.

SEXUAL HARASSMENT, DISCRIMINATION, and VIOLENCE:
In accordance with UT System regulations, your instructor is a “responsible employee” for reporting purposes under Title IX regulations and so must report any instance, occurring during a student’s time in college, of sexual assault, stalking, dating violence, domestic violence, or sexual harassment about which she/he becomes aware during this course through writing, discussion, or personal disclosure. More information can be found at www.utrgv.edu/equity, including confidential resources available on campus. The faculty and staff of UTRGV actively strive to provide a learning, working, and living environment that promotes personal integrity, civility, and mutual respect in an environment free from sexual misconduct and discrimination.

COURSE DROPS:
According to UTRGV policy, students may drop any class without penalty earning a grade of DR until the official drop date. Following that date, students must be assigned a letter grade and can no longer
drop the class. Students considering dropping the class should be aware of the “3-peat rule” and the “6-drop” rule so they can recognize how dropped classes may affect their academic success. The 6-drop rule refers to Texas law that dictates that undergraduate students may not drop more than six courses during their undergraduate career. Courses dropped at other Texas public higher education institutions will count toward the six-course drop limit. The 3-peat rule refers to additional fees charged to students who take the same class for the third time.