ANATOMY AND PHYSIOLOGY II
BIOL 2402.66310
MONDAY THROUGH THURSDAY – LECTURE - TBA, LAB H121 – 8:00-10:00AM
SYLLABUS SUMMER 2019

LECTURE: MS. SILVA
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OFFICE PHONE (214) 860-8839

SCIENCE/TECH/ENGINEERING/MATH/PE
DIVISION OFFICE: H129
DIVISION PHONE 214-860-8649 OR 5612
OFFICE HOURS: M – 1:30-2:30

COURSE DESCRIPTION: Anatomy and Physiology II is the second part of a two-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. This is a transferable course intended for those seeking to complete a Bachelor’s Degree. Credit hours - 4. Contact hours - 3 Lecture, 3 Lab

PREREQUISITE: BIOL 2401

MATERIALS REQUIRED FOR INSTRUCTION:
REQUIRED:  
Scantrons - Five 882E, Dissecting gloves
Notebook & dividers

SUGGESTED: MAP pencils. Goggles

COURSE OBJECTIVES: This course is divided into 3 units. All objectives are decided by the district curriculum committee and are based on The Texas Higher Education Coordinating Board (THECB) criteria. These objectives are measurable/observable and will be evaluated. Upon successful completion of this course, the listed lecture topics and laboratory activities will be mastered by the student and the student will be able to (orally or in writing) discuss the following:

LECTURE TOPICS
Structure and physiology of the digestive system
Metabolism
Structure and physiology of the circulatory and cardiovascular systems
Structure and physiology of the lymphatic system
Structure and physiology of the respiratory system
Structure and physiology of the urinary system
Structure and physiology of the endocrine system
Structure and physiology of the reproductive system
Embryonic and fetal development and growth
Methods of birth control
Related pathology to all systems

LABORATORY ACTIVITIES
Dissection and physiology of the digestive system
Dissection and physiology of the circulatory system and cardiovascular systems
Dissection and physiology of the lymphatic system
Dissection and physiology of the respiratory system
Dissection and physiology of the urinary system
Demonstrated use of a sphygmomanometer and stethoscope
Identification of related lymph tissue
Identify of selected endocrine gland slides and specific structures & functions
Identify the male and female reproductive anatomy
Identification of the stages of embryological development
Identification of the selected blood vessels in fetal circulation

STUDENT LEARNING OUTCOMES:
1. Students will be able to follow and explain the sequence of events in the following biological processes: digestive process, circulation of blood through pulmonary and systemic circuits, circulation of the lymphatic system, urine formation, gas exchange at the level of the lungs and at the level of tissues, biological feedback including interrelationships of hormones and their effect on bodily functions. Students will correctly identify tissue specimen as related to the endocrine and reproductive systems.
2. Students will be able to demonstrate the proper use of scientific equipment and technology to carry out a scientific investigation including the proper use of the microscope, sphygmomanometer, urinometer, and Excel spreadsheet.
3. Students will be able to collect and analyze data and apply that knowledge to interpret test results and evaluate a mock patient for a possible disease.
4. Students will correctly identify designated digestive system structures, veins and arteries, coronary structures, lymphatic structures, respiratory structures, urinary structures, reproductive structures on the human and cat.
5. Students will present an oral and written assignment to the class over a global health care issue. Students will be able to discuss how different government agencies and health care agencies have contributed to the affect of social, economic, political, and ethical factors on global health care.

CORE OBJECTIVES
1. Critical Thinking Skills - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
2. Communication Skills - to include effective development, interpretation and expression of ideas through written, oral and visual communication
3. Empirical and Quantitative Skills - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions
4. Teamwork - to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal
COURSE OUTLINE:

CLASS PROCEDURES – Successful completion of this course should be accomplished if you do the following:
1. Participation: attend and actively participate in lecture/lab (read the class notes before class, take notes, & sketch diagrams during class, ask questions, & study the notes after class daily)
2. Use eCampus: print material, answer all lecture quizzes after the lectures & utilize all the lecture and lab review material.
3. Create your own study guides for the lecture and lab exams: Use lab manual and textbook, lectures, and internet information and images.
4. Notebook: the notebook should have all course material organized and available. Ex. a table of contents, dividers, course material, & study guides
5. Assignments: To receive credit for your work, you must have YOUR NAME, COURSE & SECTION, STUDENT ID#, DATE, AND INSTRUCTOR’S NAME ON ALL ASSIGNMENTS, and it must handed in by the deadline. LATE WORK IS NOT ACCEPTED.
6. Exams: Lecture exams must be taken on or before the exam deadline. MAKE UP EXAM POLICY: In the event of a missed exam the instructor must be notified within 24 hours of the scheduled exam. If the faculty is not notified the student will receive a zero.

EVALUATION PROCEDURES: THE FINAL GRADE IS BASED UPON THE FOLLOWING:
70% LECTURE EXAMS
25% LAB EXAMS
5% ASSIGNMENTS (LATE WORK IS NOT ACCEPTED)

1. LECTURE & LABORATORY: ATTENDANCE IS MANDATORY
   • Attendance is taken at the beginning of each class period. Instructions are given at the beginning of each lab and WILL NOT be repeated.
   • Instructor Attendance Policy: Students are expected to attend every class and have the responsibility to inform the instructor when an absence occurs. If you must leave class early, you should inform the instructor prior to the start of class.
   • Prohibited behavior: Eating and/or drinking, gum, make-up, and open-toed shoes are not allowed in the classroom/lab at any time.
   • Dissections and labs using chemicals require gloves, lab coat, and goggles. Please purchase gloves before class.
   • Material safety data sheets (MSDS), required by the Occupational, Safety, and Health Administration (OSHA) are available for all students to observe upon request.
   • Technology: Please be courteous and respectful. Do not have your cell phones out during class (leave them on vibrate). Texting is not allowed in class. Also, when using your computer in class, please do not check social media until after class.
   • Due to insurance and district policy children are not allowed in the laboratory or unsupervised on campus at any time.

2. STUDY MATERIAL: Print all unit material before unit begins.
   • Notes: Print the lectures. The exams will strongly reflect the information from your notes, lectures, and discussions.
   • Lecture Quizzes: PLEASE PRINT OUT ALL QUIZZES ON ECAMPUS and bring to class. Quizzes will be reviewed during class.
   • Lab Material & Reviews: print off all lab material
   • Reviews: Print off both the lecture and lab reviews for each unit. The review vocabulary list should be utilized to develop your study guides. If you know the review information, you should do very well on the test.

3. LECTURE EXAMS:
   • The lecture exams will be given ON-LINE
   • Exams must completed by the deadline on the course calendar. MAKE-UP POLICY: if an exam is missed the instructor must be notified within 24 hours of the deadline.
   • Curves: to receive a curve, you must turn an organized notebook with the follow:
     o Unit 1 – Unit I material, Unit I study guide, and turn in a 2 scholarships you qualify for and can apply to.
     o Unit 2 – Unit II material, Unit II study guide, and write a personal statement.
     o Unit 3 – Unit III material, Unit III study guide, and endocrine research/charts.
     o Loss of the Curve – failure to turn in the notebook, and marking on the exams. Any marks on the exam will result in the loss of the class curve on your exam. In addition, unexcused absences, habitual lateness, taking exams late, and lack of participation will result in loss of the class curve.

4. LAB EXAMS: Laboratory examinations are given in class.
   Lab exams MUST be taken during the scheduled lab exam time. There is a one-hour time limit for lab exams.

5. GRADE POSTING: Grades will be posted on eCampus. eCampus: Go to the website: http://ecampus.dcccd.edu. Your login is an “e” and your seven digit student identification number (example: e1234567). Your password will be the same as your login. It is strongly suggested that you change your password. If you are having difficulties please let me know. Final grades will be on eConnect.

6. INTERNET/RESEARCH ASSIGNMENT: Using the computer and the internet.
   • Assessment – Case Study, further instructions will be posted on eCampus.

7. INSTITUTIONAL POLICIES: www.mountainviewcollege.edu/syllabipolicies
# ANATOMY & PHYSIOLOGY II - EXAM BREAKDOWN

## UNIT I – SUMMARY

LECTURE NOTES: STUDY THE UNIT 1 LECTURE NOTES ON ECAMPUS  
SUPPORT INFORMATION: 24, 25, 19, 20, 21, 27  
LECTURE EXAM: DIGESTIVE AND CIRCULATORY SYSTEMS. 100 TOTAL EXAM QUESTIONS. ONE #882E SCANTRON.  
LAB EXAM:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th># OF QUESTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIGESTIVE SYSTEM</td>
<td>35</td>
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<tr>
<td>CIRCULATORY SYSTEM (CAT &amp; HUMAN)</td>
<td>35</td>
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<tr>
<td>TEST TOTAL</td>
<td>70</td>
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## UNIT II – SUMMARY

LECTURE NOTES: STUDY THE UNIT 2 LECTURE NOTES ON ECAMPUS  
SUPPORT INFORMATION: 22, 23, 26, 27 AND STUDY THE LECTURE NOTES ON ECAMPUS  
LECTURE EXAM: LYMPHATIC, RESPIRATORY, AND URINARY SYSTEMS. 100 TOTAL EXAM QUESTIONS. ONE #882E SCANTRON.  
LAB EXAM I: PURCHASE ONE #882ES SCANTRON.

<table>
<thead>
<tr>
<th>TOPIC</th>
<th># OF QUESTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>LYMPH SYSTEM</td>
<td>16</td>
</tr>
<tr>
<td>RESPIRATORY SYSTEM</td>
<td>30</td>
</tr>
<tr>
<td>URINARY SYSTEM</td>
<td>27</td>
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<tr>
<td>TEST TOTAL</td>
<td>73</td>
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</tbody>
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## UNIT III – SUMMARY

LECTURE NOTES: STUDY THE UNIT 3 LECTURE NOTES ON ECAMPUS  
SUPPORT INFORMATION: 17, 18, 28, CHAPTERS 29  
LECTURE EXAM: ENDOCRINE, REPRODUCTIVE, AND EMBRYOLOGY. 100 TOTAL EXAM QUESTIONS. ONE #882E SCANTRON.  
LAB EXAM II: UNIT III MATERIAL. PURCHASE ONE #882ES SCANTRON

<table>
<thead>
<tr>
<th>TOPIC</th>
<th># OF QUESTIONS</th>
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<tbody>
<tr>
<td>ENDOCRINE SLIDES</td>
<td>44</td>
</tr>
<tr>
<td>MALE MODEL</td>
<td>9</td>
</tr>
<tr>
<td>CELL TO EMBRYO MODEL</td>
<td>4</td>
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<tr>
<td>FEMALE MODEL</td>
<td>5</td>
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<tr>
<td>BREAST</td>
<td>4</td>
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<tr>
<td>FETAL CIRCULATION</td>
<td>4</td>
</tr>
<tr>
<td>ENDOCRINE MODEL</td>
<td>6</td>
</tr>
<tr>
<td>REPRODUCTIVE QUESTIONS</td>
<td>4</td>
</tr>
<tr>
<td>TEST TOTAL</td>
<td>80</td>
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<tr>
<td>MONDAY</td>
<td>TUESDAY</td>
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<td>---------------------------------------------</td>
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</tr>
<tr>
<td>7/8  ORIENTATION &amp; MSDS VIDEO</td>
<td>7/9  Lec: Circulatory System</td>
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<tr>
<td>Lec: Digestive System</td>
<td>HW: Digestive &amp; Circulatory Diagrams</td>
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<tr>
<td>7/16 Lec: Circulatory System</td>
<td>7/16  Lec: Circulatory System &amp; Allergies</td>
</tr>
<tr>
<td>Lab: Digestive System</td>
<td>Lab: Digestive &amp; Circulatory Models</td>
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<td>7/16  Lec: Atherosclerosis &amp; Blood Clotting</td>
<td>7/16  Lec: Lymphatic System &amp; Hypersensitivity</td>
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<tr>
<td>Lab: Dissection: Sheep Heart &amp; Blood Pressure and Blood Cell Observation</td>
<td>Lab: Lymphatic System</td>
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<tr>
<td>7/22  Lec: Respiratory System</td>
<td>7/22  Lec: Respiratory System &amp; Hypersensitivity</td>
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<td>Lab: Dissection: Respiratory Anatomy, Spirometry</td>
<td>7/24  Lab: Urinalysis</td>
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<tr>
<td>Check Notebooks</td>
<td>Renal Dissection: Cat and Sheep Kidney</td>
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<tr>
<td>7/23  Lec: Renal Filtration</td>
<td>7/30  Lec: Thyroid &amp; Parathyroid</td>
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<tr>
<td>Renal Dissection</td>
<td>7/30  Check Notebooks</td>
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<td>7/29  Lec: Endocrine Physiology; Hypothalamus &amp; Hypophysis; Thyroid &amp; Parathyroid</td>
<td>7/30  Lab: Endocrine Slides</td>
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<tr>
<td>Lab: Endocrine Slides</td>
<td>7/30  Hypothalamus &amp; Hypophysis; Thyroid &amp; Parathyroid</td>
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