



Anatomy & Physiology II (BIOL 2302)

Credit: 3 semester credit hours (3 hours lecture)

Prerequisite: BIOL 2301 and BIOL 2101 (lab)

Co-requisite: BIOL 2102 (lab).

Course Description

Study of the structure and function of human anatomy, including the neuroendocrine, respiratory, lymphatic, digestive, urinary, reproductive, and circulatory systems.

Textbooks and Materials

1. The spiral bound workbook, "The Anatomy Assignment, Level 2, **revised printing** by Stephanie Lanoue, Kendall Hunt Publishing, 2014. ISBN-13: 978-1465250384
2. *Anatomy & Physiology* by E. Marieb, ISBN 9780321615879 (optional to purchase)
2. Eight #882 scantrons and regular (non-mechanical) #2 pencils with erasers.
3. Calendar for recording assignment due dates, tests, projects, etc.
4. Notebook with pocket (three-ring for binding class notes, activities, and returned tests)
5. Pens, colored pencils and/or highlighters of various colors
6. Materials necessary to create a visual aid for a group project/ presentation such as a USB (Flash) drive
7. Computer internet access to class website: <http://lanoue.webstarts.com>

Course Objectives

Upon completion of this course, the student will be able to:

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.

Core Outcomes (from State of Texas; Everyone must demonstrate proficiency)

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 & Quantitative Skills: To include the manipulation and analysis of numerical data or observable facts resulting in informed conclusion
 4. Teamwork: To include the ability to connect choices, actions, and consequences to ethical decision-making
 5. Personal Responsibility: To include ability to connect choices, actions and consequences to ethical decision-making

Course Outline

I. Endocrine System

- A. Organs of the endocrine system
- B. Functions of the endocrine organs
- C. Hormones and target tissues
- D. Endocrine disorders

II. Blood

- A. Red Blood Cells
- B. White Blood Cells
- C. Platelets and blood clotting
- D. Blood Groups and compatibility
- E. Diseases

III. Heart

- A. Structure and function
- B. Blood flow through the heart
- C. Electrical conduction system and ECG interpretation

IV. Circulatory System

- A. Types of blood vessels and characteristics
- B. Anatomy of the major arteries (anterior and posterior)
- C. Anatomy of the major veins (anterior and posterior)

V. Lymphatic and Immune Systems

- A. Organs of the lymphatic system
- B. Functions of those organs
- C. Immunity and disease

VI. Respiratory System

- A. Structural anatomy
- B. Physiology
- C. Diseases

VII. Digestive System

- A. Organs and structures
- B. Functions of organs
- C. Enzymes and the digestive process

D. Diseases

VIII. Nutrition

- A. Proper nutrition (problems with N. American diet)
- B. Metabolism and Krebs's cycle

IX. Urinary System

- A. Structural anatomy
- B. Electrolytes and Fluid Balance
 - 1. Fluid
 - 2. Electrolyte balance

X. Reproductive System

- A. Male anatomy
- B. Female anatomy
- C. Function
- D. Meiosis

Grades/ Grading Scale

- A= 900-1000 points
- B= 800-899 points
- C= 700-799 points
- D= 600-699 points
- F= 599 points or below

Course Evaluation/ Grades

The final grade is based upon grades earned on tests, a group research project with presentation, a reading assignment with brief commentary paper, and a participation grade for oral class discussions. You will complete:

1. Four major tests (200 points each/ 600 points total or 60%). The best 3 tests of the 4 are recorded (total =600 points from tests). One major test grade must be dropped. Level 2 (Biol 2302) students may be eligible to drop the Final Exam if (and only if) you have 3 other tests taken with an "A" achieved on each of those 3 previous exams and 900 or more accumulated points without extra credit (this may be calculated with the addition of documented extra points prior to the Final Exam and requires the instructor's approval).
2. Group Research Project with Presentation (COMMON ASSIGNMENT) 200 points/20%
3. Reading assignment (1 chapter excerpt from *Anti-Cancer: The New Way of Life* on *website under assignments*) with 1-2 page commentary paper (50 points or 5%).
4. Four quizzes (best 3 quiz grades are kept and recorded). 50 pts each = total 150 pts or 15%.

Course Policies

1. **No Outside Cell Phone Calls or Texting.** Students are not to use their cell phones during class for personal use or text messaging. We will use the technology at times to google and conduct research during class. This is when the technology is permitted.

2. **Late work is not accepted.** Students will receive a zero for assignments not completed on time.

3. **No makeup exams.** If you miss an exam, it is your dropped grade for the semester. Only one major test grade may be dropped per semester. Only one test may be missed per semester. This applies to quizzes as well.

4. **Discipline Policy.** In the case of disruptive behavior, the instructor reserves the right to ask you to leave the classroom. Examples include excessive talking in class that is off-topic, chatting on cell phones or text messaging, loud gum popping, etc.

5. **Food and/or Drinks are not allowed in the classroom.** LIT Policy prohibits food and drinks in the Multi Purpose Building classrooms.

6. **Attendance Policy.** Roll will be taken daily. Your attendance is documented by signing your initials on the class roll every day. Do not initial/sign the roll for another student.

7. **Class Arrival / Departure Times**

- a. Tardy. Please be prompt! Students are expected to be in your seat, on time, when roll is taken. **On test days, the instructor reserves the right not to administer a test to a student who arrives more than 15 minutes late.**
- b. **4 tardies = 1 absence (Enforced!)**
- c. **Class Departure Time.** Students are required to stay the entire length of each lecture class unless dismissed, as a class, by the instructor. Do not ask to “leave class early” for doctor’s appointments, picking up children from day care/ school, etc. Pre-arrange for these things ahead of time. Students are expected to be in class the entire class period.
- d. **Class Absence.** It is the student’s responsibility to obtain missed lecture notes on video and class handouts. Go to the website and watch the class videos to complete missed notes.
- e. **Absence on a Test Day.** One test may be excused and/or dropped per semester (NO EXCEPTIONS!) If you miss a test for any reason, that is your dropped test for the semester. Please do not ask for special favors.

Disabilities Statement

The Americans with Disabilities Act of 1992 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. Among other things, these statutes require that all students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodations

for their disabilities. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409) 880-1737 or visit the office located in the Cecil Beeson Building, room 116B.

Course Schedule (Tentative) *Students are expected to read and complete questions in your spiral workbooks AND watch video lectures/complete PowerPoint notes BEFORE coming to class. During class in level 2, we will be busy with discussions, activities and related group work – if you have not prepared for class, you will be LOST this semester and it will show so BE READY! Be proactive!

Week	Topic	Reference/ Required Action
<p>1 1/16 – 1/19</p>	<p>Go over syllabus; Begin Ch 1 Endocrine</p> <p>Next class Endocrine continued</p> <p>Reminders: Bring spiral workbook with Ch 1 completed to receive extra credit during first quiz next week.</p>	<p>Class website & spiral workbook</p> <p>Action Items: (1) Print out syllabus from lanoue.webstarts.com and place in personal 3-ring notebook (2) Get spiral workbook and read Ch 1 Endocrine system and complete all questions in that chapter (3) Watch all Ch 1 Endocrine videos and complete Ch 1 PowerPoint templates from Ch 1 videos & place in your personal notebook (4) Prepare for syllabus Quiz 1</p>
<p>2 1/22 – 1/26</p>	<p>Ch 1 Endocrine continued; Quiz 1 over Syllabus on scantron</p> <p>Reminder: Bring spiral workbook to class; it will be checked during Quiz 1</p>	<p>Class website & spiral workbook</p> <p>Action Items: (1) continue and finish everything listed from last week (2) Prepare for Endocrine Quiz</p>
<p>3 1/29 – 2/2</p>	<p>Quiz 2 over Endocrine; then start Ch 2 Blood</p> <p>Finish Ch 2 next class & go over Group presentation assignment Group Meeting #1</p> <p>Reminder: Bring spiral workbook to class (always!). Complete the questions in your spiral associated with Ch 2.</p>	<p>Class website & spiral workbook</p> <p>Action Items: (1) Read Ch 2 in spiral workbook and answer questions (2) Watch Ch 2 videos and complete PowerPoint notes and print out for 3-ring personal notebook (3) Prepare for first major test over Ch 1 & 2 next week</p>

4 2/5 – 2/9	Exam 1 (Ch 1 – 2); next class start Ch 3 Heart Reminder: bring scantron to class for test 1	Class website & spiral workbook Action Items (1) prepare for Exam 1 using Test Review found under “Get Class Notes” link and scroll underneath all PowerPoints to “Final Exam Review” and complete the first two chapters only (2) Read Ch 3 in spiral workbook and complete questions (3) Watch Ch 3 videos and complete PowerPoints & place in personal notebook
5 2/12 – 2/16	Ch 3 Heart finish; start Ch 4 Circulatory	Class website & spiral workbook Action Items: (1) Read Ch 4 in spiral and complete questions (2) Watch all Ch 4 videos and complete PowerPoint notes for notebook (3) prep for upcoming quiz
6 2/19 – 2/23	Finish Ch 4 Circulatory; Quiz 3 over Ch 4 then Start Ch 5 Lymphatic Reminder: bring scantron for quiz 3	Class website & spiral workbook Action Items: (1) continue from last week & prep for upcoming quiz (know all arteries and veins) (2) Read Ch 5 and complete questions in spiral (3) Watch Ch 5 videos and complete Powerpoints for notebook
7 2/26 – 3/2	Finish Ch 5 Lymphatic System then have Group Meeting #2; Next class Exam 2 (Ch 3 – 5); Reminder: bring scantron for test 2	Class website & spiral workbook Action Items: (1) Study for upcoming test / use Test Review Guide online
8 3/5 – 3/9	Ch 6 Respiratory	Class website & Spiral workbook Action Items (1) Read Ch 6 Respiratory and complete all questions (2) Watch Ch 6 videos and complete PowerPoint notes (3) Prep current event for when you return to school
3/12 – 3/16	Spring Break – No classes	

<p>9</p> <p>3/19 – 3/23</p>	<p>Ch 7 Digestion (all week)</p> <p>Next class finish Ch 7 P2 - Digestion then Group Meeting #3</p>	<p>Class website & spiral w.b.</p> <p>Action Items: (1) Watch Digestion videos and complete notes (3) Read digestion chapter and complete questions (4) work on your upcoming paper due next week</p>
<p>10</p> <p>3/26 – 3/30* (*holiday)</p>	<p>Ch 8 Nutrition *papers due</p> <p>Next class Nutrition Ch 8, p2 continued</p> <p>Reminder: Bring paper to second class meeting this week</p>	<p>Class website & spiral w.b.</p> <p>Action Items: (1) Read Ch 8 Nutrition and complete questions in spiral (2) Watch nutrition videos and complete PowerPoints (3) Paper due second class meeting of this week – Be ready!</p>
<p>11</p> <p>4/2 – 4/6</p>	<p>Finish Ch 8 P 3</p> <p>Next class Exam 3 (Ch 6 – 8)</p> <p>Reminder: bring scantron for Exam 3</p>	<p>Class website & spiral W.B.</p> <p>Action Items: (1) continue from last week (2) Prep for upcoming test next week – use online Test Review Guide for the 3 chapters you are testing over</p>
<p>12</p> <p>4/9 – 4/13</p>	<p>Ch 9 P1 – Urinary</p> <p>Next class Ch 9 P2 Urinary</p>	<p>Class website & spiral w.b.</p> <p>Action Items: (1) bring scantron (2) Read chapter over Urinary and complete questions (3) Watch all videos related to Urinary and kidneys/ complete PowerPoints</p>
<p>13</p> <p>4/16 – 4/20</p>	<p>Quiz 4 over Urinary/ start Electrolytes & Fluid Balance</p> <p>Next class Ch 10 (Reproduction), Part 1 only - content ends here</p> <p>Reminder: bring scantron for Quiz 4</p>	<p>continue</p> <p>Action Items: (1) Prep for Quiz 4 (2) Bring scantron for quiz (2) Watch videos related to Electrolytes and complete PowerPoints (3) Watch Ch 10, Part 1 videos and complete PowerPoints (3) Finish final group presentation details and dress rehearsal practice! Be ready for next week's presentations</p>

<p>14 4/23 – 4/27</p>	<p>Presentation week – Group Projects</p>	<p>Instructions for Group Presentation online under “Assignments” link</p> <p>Action Items: Bring one copy of your PowerPoint presentation printed out (6 slides to a page format), a completed Self-Evaluation Point sheet and one completed meeting log to class when you present. Give to Ms Lanoue BEFORE your group presents.</p>
<p>15 4/30 – 5/4* (*Last Class day)</p>	<p>Final Exams & Workbooks Due</p> <p>Exam 4 - Final Exam (50 questions over last 3 chapters)</p> <p>To be exempt, you must have 900 points going into the Final Exam WITHOUT extra credit</p>	<p>Action Items: (1) make sure your spiral workbooks are complete... push to finish everything up! They are due when you take your Final Exam! No Exceptions!</p> <p>If you have less than 900 pts, you MUST take the Final Exam to complete the course. Instructor permission is required to exempt from the Final Exam in ALL cases.</p>
<p>16 5/7 – 5/9</p>	<p>Course finished, no more class</p>	

Contact Information

salanoue@lit.edu

Office Location: MPC 204, D

Office Hours (for student consultation): updated each semester