**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. Nine #882 scantrons and regular (non-mechanical) #2 pencils. Good eraser. Do not bend

 scantrons up (keep flat so they will feed through the grading machine)

3. Calendar for recording assignment due dates, tests, projects, etc.

4. Three-ring for binding class notes, activities, and returned tests (Required as class

 participation grade)

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 (linked to Common Assignment)**

1. Critical Thinking Skills: To include creative thinking, innovation, inquiry, and analysis,

 evaluation and synthesis of information

1. 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 Kreb’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 (simply add up all assignments to calculate final average)**

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.

1. Four major exams are given (100 points each/ 300 points total or 30%). The best 3 tests of the 4 are recorded (total =300 points from major exams). One major test grade must be dropped. Level 2 (Biol 2302) students must take the Final Exam.
2. Solo Current Event with 2-3 min presentation & prop. 100 pts (10%)

 3. Group Research Project with Presentation (200 points/20%)

 4. Reading assignment (1 chapter excerpt from *Anti-Cancer: The New Way of Life)* with 1-2

 page commentary paper (100 points or 10%)

 5. Five quizzes (best 4 quiz grades are kept and recorded). 50 pts each = total 200 pts or

 20%.

 6. Completed workbook. 100 pts (10%)

**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. Show respect for your instructor and classmates.

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. If you come in late OR somehow the roll gets past you, it is your full responsibility to sign that roll sheet BEFORE leaving class. Failure to do so WILL result in an absence being logged into the school’s Starfish accountability system. I cannot go back and current numerous omission errors on your part and I am not responsible for doing so. Additionally, **do not** initial/sign the roll for another student.

7. **Class Arrival / Departure Times**

1. 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 10 minutes late.**

 b. 4 tardies = 1 absence

1. **Class Departure Time.** Students are **required to stay the entire length of each lecture** class unless dismissed, as a class, by the instructor. VERY IMPORTANT - 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. Leaving early may result in being counted absent for failure to attend a full class period.
2. **Class Absence**. It is the student’s responsibility to obtain missed lecture notes on video and class handouts.
3. **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 as everyone is treated equally.

**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)**

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| **Week**  | **Topic** | **Your Required Action**  |
| 18/26 – 8/30 | Tues - Go over syllabus; begin Ch 1 EndocrineThurs – continue Ch 1 EndocrineReminders: Bring spiral workbook with Ch 1 completed to receive extra credit during first major exam.Set up your 3-ring binder. Place syllabus in notebook prior to next class. Watch your Ch 1 Endocrine videos  | Class website & spiral workbookChecklist: \_\_(1) Print out syllabus from lanoue.webstarts.com and place in personal 3-ring notebook; get familiar with the syllabus for Quiz 1 next week\_\_(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 print out Power Point note templates Ch 1 PowerPoint templates & place in your 3-ring notebook. \_\_(4) Go over Ch 1 notes and prepare for next week’s Quiz 1 & 2 also (\*remember to buy scantrons and bring one with you) |
| 29/2 – 9/6/2019 | Tues – **Quiz 1** over Syllabus then finish Ch 1 Endocrine. Begin Ch 2 Blood.Thurs – **Quiz 2** over Ch 1 then finish Ch 2 Blood. Reminder: follow the weekly checklists ---------🡪 | Class website & spiral workbookChecklist: \_\_(1) Do Ch 2 in the workbook; watch C 2 videos \_\_(2) Prepare for first major test over Ch 1 & 2 next week. You test review is online under “Get Class Notes” and scroll underneath all the notes to see the link at the bottom “Test Review” (pull just Ch 1 and 2 to study for Exam 1) |
| 39/10 and 9/12 | Tues – **EXAM 2** (Ch 1-2). Reminder: bring **scantron** to class for Exam 1 and Ch 1 completed in spiral workbook (I will check Ch 1 during Exam 1 if you would like extra credit have it ready)Thurs – Start Ch 3 Heart | Class website & spiral workbookChecklist: \_\_(1) Read Ch 2 in spiral workbook and answer questions \_\_(2) Watch Ch 2 videos and print out PowerPoint notes templates for class (place in 3-ring notebook)\_\_(3) prepare for Exam 1 \*bring scantron and spiral workbook with Ch 1 completed if you want extra credit \_\_(3) Begin Ch 3 |
| 49/17 and 9/19 | Tues – finish Ch 3 Heart & go over Group Presentation assignment (draw topics and get into groups)Thurs – Start Ch 4 Circulatory | Class website & spiral workbookChecklist: \_\_(2) Read Ch 3 in spiral workbook and complete questions \_\_(3) Watch Ch 3 videos and print out PowerPoint note templates & place in personal notebook (study heart anatomy/structures, flow of blood through the heart and electrical conduction system especially)\_\_(4) Finish up all Ch 3 heart\_\_(5) Begin Ch 4 workbook, answer questions, watch videos |
| 59/24 and 9/26 | Tues – finish Ch 4 CirculatoryThurs - **Group Meeting #1** on Ms. Lanoue. Meet with your groups during class time. Bring content ideas to meeting. Sign meeting log as proof of attendance. | Class website & spiral workbookChecklist: \_\_(1) Print your content ideas to bring to your group meeting this week\_\_(2) Begin reading Ch 4 in spiral and complete questions; prep for upcoming quiz |
| 610/1 and 10/3 | Tues – **QUIZ 3** (Circulatory) then Ch 5 Lymph (students – finish Ch 5 Lymph notes from the videos on your own)Thurs – Start Ch 6 Respiratory (this chapter is NOT on next week’s exam) | Class website & spiral workbookChecklist: \_\_(1) Watch all Ch 4 videos and print out PowerPoint note templates\_\_(2) continue from last week & prep for upcoming quiz (know all arteries and veins both anterior and posterior) \_\_(3) Read Ch 5 and complete questions in spiral ;Watch Ch 5 videos and print out Power point note templates for class\_\_(4) Prep for Exam 2 next week (Ch 3 – 5) |
| 710/8 and 10/10 | Tues –  **EXAM 2** (Ch 3 Heart, Ch 4 Circulatory and Ch 5 Lymphatic System).Thurs –  **Solo Current Events** during class time (don’t forget your prop) | Class website & spiral workbookChecklist: \_\_(1) Bring scantron for exam\_\_(2) Bring your completed current event and prop to class Thurs\_\_(3) Start Ch 6 workbook & videos |
| 810/15 and 10/17 | Tues - finish Ch 6 Respiratory and go over Paper assignment. **Paper is due Tues 10/29.** Thurs – Start Ch 7 Digestion | Class website & Spiral workbookChecklist: \_\_(1) Be ready to present your solo current event (\*bring your prop)\_\_(2) Read Ch 6 Respiratory and complete all questions\_\_(3) Watch Ch 6 videos and print PowerPoint notes Ch 7 for next week\_\_(4) work on upcoming papers |
| 9 10/22 and 10/24 | Tues – finish Ch 7 Digestion Thurs –  **QUIZ 4** (Digestion) then start Ch 8 Nutrition \***papers due** |  Class website & spiral w.b.Checklist: \_\_(1) Watch Ch 7 videos and bring notes template for this chapter (fill in during class)\_\_(2) Read digestion chapter (Ch 7) and complete questions \_\_(3) Prep for quiz this week (bring scantron) & work on your upcoming paper due this week. Assignment can be found under “Assignment” link on course website under “Reading” and “Writing” links (read then follow instructions to write a short paper over what you read) |
| 1010/29 and 10/31 | Tues – finish Ch 8 (NOTE: we will only do Part 1 and 2)Thurs – **Group Meeting #2** during class time | Checklist:\_\_(1) Prep for Exam 3 next week; se online test review\_\_(2) Read Ch 8 Nutrition and complete questions in spiral \_\_(3) Watch nutrition videos and print PowerPoints for class Reminder: Sign meeting logs during Thurs meeting (be sure to contribute to your group); also get paper written and ready to turn in next week |
| 1111/5 and 11/7 | Tues-  **EXAM 3** (Ch 6 – 8)Thurs – Ch 9 Urinary/ go as far as we can! Try to finish most of this chapter. | Class website & spiral w.b.Checklist:  \_\_(1)Bring scantron for exam this week\_\_(2) Prep for next week’s quiz (bring scantron for that too)\_\_(3) finish all Ch 9 videos & workbook |
| 1211/12 and 11/14 | Tues – **QUIZ 5** (Urinary, Part 1 only) then finish any Ch 9 that we did not get to. Start Electrolytes also – we will go as far as we can! (Students – please note that you will be expected to complete the Electrolyte notes from the videos if we do not have enough class time to finish & this may very well be the case due to upcoming holidays/ time constraints). | Checklist: \_\_(1) bring scantron for quiz \_\_(2) bring Ch 9 note template to class\_\_(3) Read Ch 9 in workbook and answer all question\_\_(4) Finish up Electrolytes (all notes from videos) |
| 1311/19 and 11/21 | Tues **– Group Meetings #3** (on Ms. Lanoue) Remember to sign meeting logs.Thurs – **GROUP PRESENTATIONS begin** | Remember to sign meeting logs. Get presentations finished!**Reminder: bring one copy of presentation, meeting log and self-eval sheet completed per group Thurs** |
| 1411/26 and 11/28 | Tues – **GROUP PRESENTATIONS finish**Thurs – Holiday  | Class website & spiral w.b.\_\_(1) Watch all videos related to Urinary and kidneys\_\_(2) Print out Electrolytes Power Point note templates for next week/ go ahead and complete these notes from the videos as we are probably going to be short on class time to finish this content |
| 1512/3 and 12/5 (\*last class day) | Tues - Ch 10 Reproductive, Part 1 only. End content.Thurs - **EXAM 4 (Final)** over last 3 chapters (Urinary, Electrolytes and Repro part 1)  | Complete spiral workbook and bring with you to class.**REMINDER: Bring completed workbook to Final Exam. I will grade it while you are taking the Final.****All students take the Final Exam – no exceptions!** |

**Contact Information – Please note, I prefer email rather than phone calls**

salanoue@lit.edu

**Office Location:** MPC 204D

**Office Hours (for student consultation Biol 2302 students):** *please let me know if you are stopping by if at all possible*

Tues and Thurs **10:20 – 10:55am**