



## Central College

BIOL 2402 Anatomy and Physiology II CRN 70441 | Fall 2015  
Central Campus - Room LHSB 315 | 5:30 - 8:30 pm | Tuesdays  
Room LHSB 316 | 5:30 - 8:30 pm | Thursdays  
3 hours of lecture, 3 hours of lab / 96 hours per semester / 16 weeks

### Instructor Information

**Instructor:** Lawrence Wald, B.A., D.C.

**Instructor Contact Information:** [lawrence.wald@hccs.edu](mailto:lawrence.wald@hccs.edu)

**Office Location:** Biology office: Room LHSB 401; (713) 718-6050  
Please feel free to contact me concerning any problems that you are experiencing in this course. You do not need to wait until you have received a poor grade before asking for my assistance. Your performance in my class is very important to me. I am available to hear your concerns and just to discuss course topics.

### Course Information

**Course Description:** Continuation of BIOL 2401 including the circulatory, respiratory, digestive, excretory, reproductive and endocrine systems. Core Curriculum Course

**Core Curriculum Statement:** *Credit: 4 (3 lecture/3 lab)*

The objective of the natural sciences in the core curriculum is to enable the student to understand, construct, and evaluate relationships in the natural sciences and to enable the student to understand the basis for building and testing theories.

#### Course Prerequisites:

College-level reading (or take GUST 0342)  
College-level writing (or take ENGL 0310/0349)  
BIOL 2401

**Course Goal:** HCCS' goal is that all students become competent in reading, writing, computer literacy, listening and speaking.

#### Student Learning Outcomes & Objectives:

1. Students will be able to analyze the circulatory systems (including lymphatic and immune systems) and their components.
2. Students will be able to understand hormonal control of body systems and homeostasis.
3. Students will be able to analyze the histology; gross anatomy and the physiology of the respiratory and urinary systems applying the structural and physiological linkage of these systems with the cardiovascular system.

4. Students will be able to analyze, understand and explain the structure and function of the digestive system correlating it with metabolism.
5. Students will be able to analyze and evaluate the structure, function and regulation of the reproductive system.
6. Students will be able to apply the knowledge gained in lab utilizing anatomical models and physiology experiments.
7. Students will utilize online interactive evaluation tools to gauge their understanding of key anatomical and physiological concepts prior to lecture/examinations/quizzes where applicable.

## Instruction Information

### Instructional Materials:

#### **Lecture:**

**Textbook:** Martini FH, Nath JL, Bartholomew EF, *Fundamentals of Anatomy and Physiology*, 10<sup>th</sup> edition. Pearson Benjamin Cummings: San Francisco, 2014

**Eagle Online:** All lecture notes, powerpoints, study guides, illustrations, up-to-date information can be accessed online. “Eagle” is your direct link to all relevant information presented in this course. (Please use it often!)

The following web address will take you to “Eagle’s” login page:  
<https://eo2.hccs.edu>

If this your first time using “Eagle”, your username is your HCC User ID. or W number [For example: W0034567]

Your password is the password you created for your HCC Email.

**Mastering A & P:** The biology department requires chapter assignments from the textbook publisher’s website. As well as the mandatory assignments, the web site has many valuable learning aides such as chapter pre-tests, quizzes, videos, and activities.

You will need an access code to enter the website. A code comes free with the textbook. It can also be purchased without the textbook.

Web address: [www.pearsonmastering.com](http://www.pearsonmastering.com)  
Course ID code: central67306

#### **Laboratory:**

**Lab Book:** J. Wagle, Ed. *Human Anatomy & Physiology II BIOL 2402 Lab Manual*, 3<sup>rd</sup> edition, 2010.

**HCC Biology Department Online Study Pages:** Excellent interactive Biology department laboratory study pages can be accessed at the following link: [www.hccs.edu/biologylabs](http://www.hccs.edu/biologylabs)

**16 Week Calendar:**

| <b>WEEK</b> | <b>DATE</b>    | <b>TOPIC</b>                                  | <b>Text Chapter<br/>or<br/>Lab Manual Exercise</b> |
|-------------|----------------|---|--|
| <b>1</b>    | Aug 25         | Lect: Introduction; Syllabus; Blood           | Chapter 19   |
|             | <b>Aug 27</b>  | <b>Lab: The Blood</b>                         | <b>Exercise 2</b>                                  |
| <b>2</b>    | Sept 1         | Lect: The Heart                               | Chapter 20   |
|             | <b>Sept 3</b>  | <b>Lab: The Heart</b>                         | <b>Exercise 3</b>                                  |
| <b>3</b>    | Sept 8         | Lect: Blood Vessels and Circulation           | Chapter 21   |
|             | Sept 10        | Lab: Electrocardiography                      | Exercise 4   |
| <b>4</b>    | <b>Sept 15</b> | <b>Lect: Lecture Exam 1</b>                   | <b>Chapters 19, 20, 21</b>                         |
|             | Sept 17        | Lab: Blood Vessels                            | Exercise 5   |
| <b>5</b>    | Sept 22        | Lect: The Lymphatic System                    | Chapter 22a  |
|             | Sept 24        | Lab: The Lymphatic System                     | Exercise 6   |
| <b>6</b>    | Sept 29        | Lect: The Respiratory System                  | Chapter 23   |
|             | Oct 1          | Lab: The Respiratory System                   | Exercise 7   |
| <b>7</b>    | Oct 6          | Lect: The Urinary System                      | Chapter 26   |
|             | Oct 8          | Lab: The Urinary System                       | Exercise 9   |
| <b>8</b>    | <b>Oct 13</b>  | <b>Lect: Lecture Exam 2</b>                   | <b>Chapters 22a, 23, 26</b>                        |
|             | <b>Oct 15</b>  | <b>Lab: Lab Midterm Practical</b>             | <b>Exercises 2, 3, 4, 5, 6, 7</b>                  |
| <b>9</b>    | Oct 20         | Lect: The Digestive System                    | Chapter 24   |
|             | Oct 22         | Lab: The Digestive System                     | Exercise 8   |
| <b>10</b>   | Oct 27         | Lect: Metabolism & Energetics                 | Chapter 25   |
|             | Oct 29         | Lab: The Digestive System                     | Exercise 8   |
| <b>11</b>   | Nov 3          | Lect: Fluid, Electrolyte, & Acid=Base Balance | Chapter 27   |
|             | Nov 5          | Lab: The Endocrine System                     | Exercise 1   |
| <b>12</b>   | <b>Nov 10</b>  | <b>Lect: Lecture Exam 3</b>                   | <b>Chapters 22a, 25, 27</b>                        |
|             | Nov 12         | Lab: The Male Reproductive System             | Exercise 11  |
| <b>13</b>   | Nov 17         | Lect: Immunity                                | Chapter 22b  |
|             | Nov 19         | Lab: The Female Reproductive System           | Exercise 12  |
| <b>14</b>   | Nov 24         | Lect: The Endocrine System                    | Chapter 18   |

|    |        |  |                                  |
|----|--------|--|----------------------------------|
|    | Nov 26 | Lab: Thanksgiving No Class             |                                  |
| 15 | Dec 1  | Lect: The Reproductive System          | Chapter 28                       |
|    | Dec 3  | Lab: <i>Laboratory Final Practical</i> | <i>Exercises 1, 8, 9, 11, 12</i> |
| 16 |        | <i>Lecture Exam 4 (Final)</i>          | <i>Chapters 18, 22b, 28</i>      |
|    | Dec 8  | <i>Mandatory Department Final</i>      | <i>Comprehensive</i>             |

**Instructional Assistance:**

**Biology Tutoring** - Tutotint emporium in San Jac Building. Learning emporium, Room 384 Mon-Thurs 7 am - 6 pm, Fridays 8 am - 4 pm.

**Open Labs** - Schedule will be posted.

**Instructional Methods:**

As an instructor, I want my students to be successful. I feel that it is my responsibility to provide you with a framework in which to build the vast knowledge concerning the structure and function of the human body.

As a health care provider, I want my students to experience, as I do, the realization of the miracle of the human body. To achieve these goals, I provide lecture notes and study guides which allow you to focus on my powerpoint presentations.

As a student wanting to learn about the human body, it is your responsibility to read the textbook, submit the lab reports when required, study for the exams, participate in laboratory exercises, attend class, and enjoy yourself while experiencing the human body.

As I believe that engaging the students in the learning is essential for teaching to be effective, you will spend the majority of lab time involved in collaborative efforts and discussions with your classmates.

**Instructor Responsibilities:**

As your Instructor, it is my responsibility to:

Provide the grading scale and detailed grading formula explaining how student grades are to be derived

Facilitate an effective learning environment through class activities, discussions, and lectures

Inform students of policies such as attendance, withdrawal, tardiness and make-up exams

Provide the course outline and class calendar which will include a description of any special projects or assignments

Arrange to meet with individual students before and after class as required

**Student Responsibilities:**

To be successful in this class, it is the student's responsibility to:

Attend class and participate in class discussions and activities

Read and comprehend the textbook

Complete the required assignments and exams

Ask for help when there is a question or problem

Keep copies of all paperwork, including this syllabus, handouts and all

assignments

## Assessment Information

**Student Assessments:** Assignments have been developed that will help assess your mastery of the various topics. Students will be required to successfully complete the following, according to the HCC grading scale.

Lecture Exam 1 One hundred (100) questions will be primarily multiple choice, but may also include true or false, matching, and picture identification. They will cover Chapters 19, 20, and 21. Questions will include knowledge questions, identification questions, comprehension questions, and analysis questions.

Lecture Exam 2 One hundred (100) questions will be primarily multiple choice, but may also include true or false, matching, and picture identification. They will cover Chapters 22a, 23, and 26. Questions types will include knowledge questions, identification questions, comprehension questions, and analysis questions.

Lecture Exam 3 One hundred (100) questions will be primarily multiple choice, but may also include true or false, matching, and picture identification. They will cover Chapters 24, 25, and 27. Questions types will include knowledge questions, identification questions, comprehension questions, and analysis questions.

Lecture Exam 4 (Final) One hundred (100) questions will be primarily multiple choice, but may also include true or false, matching, and picture identification. They will cover Chapters 18, 22b, and 28. Questions types will include knowledge questions, identification questions, comprehension questions, and analysis questions.

Mandatory System-wide Departmental Final Fifty (50) multiple choice questions will be chosen by a system-wide panel. The exam will be comprehensive covering all previous course-work.

Laboratory Midterm Practical One hundred (100) fill-in-the-blank identification questions scattered about 25 stations. They will cover Exercises 2, 3, 4, 5, 6, and 7.

Laboratory Final Practical One hundred (100) fill-in-the-blank identification questions scattered about 25 stations. They will cover Exercises 1, 8, 9, 11, and 12.

Laboratory Reports Written reports at the end of each lab exercise (including pre-labs) are due the day of the exercise, unless notified. [Subject to .5 point penalty for each class day overdue]

Mastering Biology Assignments There are twelve assignments, each corresponding to chapters in our textbook that will be covered in this course. Assignments contain 30 - 40 questions that are taken online. The assignments will be due the midnight before the lecture exam covering that

material

### Weighting of Assessments:

|                               |                           |
|-------------------------------|---------------------------|
| Lecture/Mastering Assignments | 80.6% of your final grade |
| Lab Exams/Lab Reports         | 9.7% of your final grade  |
| Extra Credit                  | 1.6%                      |

### Grading of Assessments:

**Lecture Exams:** Each lecture exam is worth 100 points. Each correct answer is worth one point.

**Laboratory Practicals:** Each practical is worth 100 points. Each correct answer is worth one point.

**Lab Reports:** All of the 11 lab reports together are worth 66 points. Each report (including pre-lab) can receive up to six points. The reports will be graded upon completeness. Reports are due at the end of the class period on the date at which the assignment was scheduled. Timeliness in submitting the reports can earn up to four extra points. Each late report deducts one point off the possible extra credit.

**Mastering Assignments:** All of the 12 Mastering Assignments collectively are worth 74 grade points. Each question in a chapter assignment is worth one Mastering point. You will have two opportunities to answer a question correctly. However, each additional attempt is penalized  $\frac{1}{2}$  point. [Correctly answering a question on the first try = 1 point; on the second try = .5 points; on the third try = 0 points]. There are 377 possible Mastering points. Your total Mastering points will be divided by 377 and multiplied by 74 to equal your total grade points for the mastering assignments.

**HCC Departmental Final:** The department final will be considered extra credit. For each question answered correctly, an additional 0.2 points will be added to your overall point total, with a potential of 10 points to be earned.

**Final Grade Calculation:** There is a total of 740 points to be earned during the semester [Lecture Exams = 400; Lab Exams = 200; Lab Reports = 66; Mastering = 74].. Your final grade percentage will be determined by adding all points earned from the assessments (plus extra credit) divided by 740.

Your final letter grade will be based upon the HCC grading scale.

### H.C.C. Grading Scale:

| Final Grade Percentage | Final Grade | Points Earned |
|------------------------|-------------|---------------|
| 90 - 100               | A           | 663 - 740     |
| 80 - 89                | B           | 558 - 662     |
| 70 - 79                | C           | 514 - 557     |
| 60 - 69                | D           | 440 - 513     |
| 0 - 59                 | F           | 0 - 439       |



## HCC Policy Statements

### **ADA: Services to Students with Disabilities**

Any student with a documented disability (e.g. physical, learning, psychiatric, vision, hearing, etc.) who needs to arrange reasonable accommodations must contact the Disability Services Office at Central Campus, Room LHSB 106, (713) 718-6164.

### **Academic Honesty:**

A student who is academically dishonest is, by definition, not showing that the course-work has been learned, and that student is claiming an advantage not available to other students. The instructor is responsible for measuring each student's individual achievements and also for ensuring that all students compete on a level playing field. Thus, in our system, the instructor has teaching, grading, and enforcement roles. You are expected to be familiar with the University's Policy on Academic Honesty, found in the catalog. What that means is: If you are charged with an offense, pleading ignorance of the rules will not help you. Students are responsible for conducting themselves with honor and integrity in fulfilling course requirements. Penalties and/or disciplinary proceedings may be initiated by College System officials against a student accused of scholastic dishonesty. Scholastic dishonesty : includes, but is not limited to, cheating on a test, plagiarism, and collusion.

#### Cheating on a test includes:

- Copying from another student's test paper;
- Using materials not authorized by the person giving the test;
- Collaborating with another student during a test without authorization;
- Knowingly using, buying, selling, stealing, transporting, or soliciting in whole or part the contents of a test that has not been administered;
- Bribing another person to obtain a test that is to be administered.

Plagiarism means the appropriation of another's work and the unacknowledged incorporation of that work in one's own written work offered for credit.

Collusion means the unauthorized collaboration with another person in preparing written work offered for credit. Possible punishments for academic dishonesty may include a grade of 0 or F in the particular assignment, failure in the course, and/or recommendation for probation or dismissal from the College System. (See the Student Handbook)

### **Class Attendance:**

It is important that you come to class! Attending class regularly is the best way to succeed in this class. Research has shown that the single most important factor in student success is attendance. Simply put, going to class greatly increases your ability to succeed. You are expected to attend all lecture and labs regularly. You are responsible for materials covered during your absences. Class attendance is checked daily. Although it is your responsibility to drop a course for nonattendance, the instructor has the authority to drop you for excessive absences.



If you are not attending class, you are not learning the information. As the information that is discussed in class is important for your career, students may be dropped from a course after accumulating absences in excess of 12.5% hours of instruction. The twelve hours of class time would include any total classes missed or for excessive tardiness or leaving class early.

You may decide NOT to come to class for whatever reason. As an adult making the decision not to attend, you do not have to notify the instructor prior to missing a class. However, if this happens too many times, you may suddenly find that you have lost the class.

Poor attendance records tend to correlate with poor grades. If you miss any class, including the first week, you are responsible for all material missed. It is a good idea to find a friend or a buddy in class who would be willing to share class notes or discussion or be able to hand in paper if you unavoidably miss a class.

Class attendance equals class success.

**Course Withdrawal Policy:**

An instructor will no longer give any student a grade of W after the official drop date (Friday, October 30). The Texas Legislature passed a law limiting first time entering freshman to no more than **six** total course withdrawals **throughout** their educational career in obtaining a certificate and/or degree.

**Course Repeat Policy:**

Students who repeat a course for a **third or more time** will be charged a tuition/fee increase of \$50/credit/hour at HCC and other Texas public colleges and universities. Please ask your instructor/counselor about opportunities for tutoring/other assistance prior to considering course withdrawal or if you are not receiving passing grades.

**Classroom Behavior:**

As your instructor and as a student in this class, it is our shared responsibility to develop and maintain a positive learning environment for everyone. Your instructor takes this responsibility very seriously and will inform members of the class if their behavior makes it difficult for him/her to carry out this task. As a fellow learner, you are asked to respect the learning needs of your classmates and assist your instructor achieve this critical goal.

**Use of Camera and/or Recording Devices:**

As a student active in the learning community of this course, it is your responsibility to be respectful of the learning atmosphere in your classroom. To show respect of your fellow students and instructor, you will turn off your phone and other electronic devices, and will not use these devices in the classroom unless you receive permission from the instructor.

Use of recording devices, including camera phones and tape recorders, is prohibited in classrooms, laboratories, faculty offices, and other locations where instruction, tutoring, or testing occurs. Students with disabilities who need to use a recording device as a reasonable accommodation should contact the Office for Students with Disabilities for information regarding reasonable accommodations