



## **BIOL 2401 – Anatomy and Physiology I**

CRN 47996 – Summer I 2013

Central Campus - Room LHSB 312 | 5:30 - 10:15 pm | Mon/Wed

Room LHSB 314 | 5:30 - 10:15 pm | Tues/Thurs

10 hours of lecture, 10 hours of lab / 96 hours per semester / 5 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**

Study of structure and function of human cells, tissues, organs and systems including integumentary, skeletal, muscular and nervous systems. BIOL 2401 is a Core Curriculum Course.

#### **Prerequisites**

None. But it is STRONGLY recommended by the Biology Department that you take General Biology I (BIOL 1406) first. Students who have not had General Biology will usually find themselves struggling in A & P I.

#### **Course Goal**

HCCS' goal is that all students become competent in reading, writing, computer literacy, listening and speaking. Successful completion of this course prepares you for BIOL 2402.

#### **Student Learning Outcomes**

The student will be able to:

1. Identify the gross and microscopic structures of the various tissues of the human body e.g. muscle, bone, skin, nerve.
2. Understand the functions and functioning of the various tissues of the human body e.g. muscle contraction, nerve impulses
3. Become proficient in the use of the microscope.
4. Become proficient in the understanding and use of medical terminology.

### **Learning objectives**

Students will:

1. Understand how to use the microscope and describe the use of its parts.
2. Examine and identify microscopic sections of human tissue under the microscope.
3. Expand his/her medical vocabulary through the completion of written lab reports.
4. Participate in various laboratory exercises and record the results.
5. Identify the microscopic and macroscopic structures of various human tissues through the use of slides, models, illustrations, and class notes.
6. Understand the functions of cells and their components, tissues, and the neuromusculoskeletal system.

### **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.

### **Instruction Information**

#### **Instructional Materials:**

##### **Lecture:**

**Textbook:** Martini FH, Nath JL, Bartholomew EF, *Fundamentals of Anatomy and Physiology*, 9<sup>th</sup> edition. Pearson Benjamin Cummings: San Francisco, 2012

**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://hccs1.mrooms3.net/login>

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

The default Eagle Online password at the beginning of the term for new accounts is: "distance". You will be required to change your password when you first log in.

**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.masteringaandp.com](http://www.masteringaandp.com)  
 Course ID code: SUMMER2013WALD47996

**Laboratory:**

**Lab Book:** Johnson-Murray, J. L, and J. Wagle, Eds. *Human Anatomy & Physiology I BIOL 2401 Lab Manual*, 4<sup>th</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)

**5 WEEK CALENDAR**

WEEK	DATE	TOPIC	Lab Manual Exercise or Text Chapter
1	June 3	Introduction; Syllabus; Laboratory Safety Rules  Lecture: An Introduction to Anatomy and Physiology Lab: Anatomical Terminology The Microscope and the Cell	Chapter 1  Exercise 2 Exercise 1
	June 4	Lecture: The Chemical Level of Organization The Cellular Level of Organization	Chapter 2 Chapter 3
	June 5	Lecture: The Tissue Level of Organization Lab: The Tissues	Chapter 4  Exercise 3
	June 6	Lecture: The Integumentary System Osseous Tissue and Bone Structure	Chapter 5 Chapter 6
	June 10	Lab: The Integumentary System The Skeletal System: Basic Information	Exercise 4 Exercise 5
2	June 11	Lecture: <b>Lecture Exam 1</b> The Axial Skeleton	Chapters 1; 2; 3; 4 Chapter 7
	June 12	Lab: The Skeletal System: Axial The Skeletal System: Appendicular	Exercise 6 Exercise 7
	June 13	Lecture: The Appendicular System Articulations	Chapter 8 Chapter 9

3	June 17 June 18  June 19  June 20	Lab: <b>Review</b> Lecture: Muscle Tissue The Muscular System  Lab: <b>Laboratory Midterm Exam</b> Muscle Structure  Lecture: <b>Lecture Exam 2</b> Neural Tissue	Chapter 10 Chapter 11  Exercises 1; 3; 4; 5; 6; 7 Exercise 8  Chapters 5; 6; 7; 8; 9 Chapter 12
4	June 24  June 25  June 26  June 27	Lab: Joints Spinal Cord, Spinal Nerves and Reflexes  Lecture: The Spinal Cord, Spinal Nerves, and Spinal Reflexes The Brain & Cranial Nerves  Lab: The Brain and Cranial Nerves Special Senses  Lecture: <b>Lecture Exam 3</b> Neural Integration I: Sensory Pathways, and the Somatic Nervous System	Exercise 10 Exercise 11  Chapter 13  Chapter 14  Exercise 12 Exercise 13  Chapters 10; 11; 12; 13; Chapter 15
5	July 1  July 2  July 3  July 4	Lab: <b>Review</b> <b>Laboratory Final Exam</b> Lecture: Neural Integration II: The Autonomic Nervous System and Higher-Order Functions The Special Senses  Lecture: <b>Lecture Exam 4</b> Holiday: No Class	Exercises 8; 10; 11; 12; 13  Chapter 16  Chapter 17  Chapters 14; 15; 16; 17

### 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

Seventy-five (75) questions will be primarily multiple choice, but may also include true or false, matching, and picture identification. They will cover Chapters 1, 2, 3, 4. Questions will include knowledge questions, identification questions, comprehension questions, and analysis questions.

#### Lecture Exam 2

Seventy-five (75) questions will be primarily multiple choice, but may also include true or false, matching, and picture identification. They will cover Chapters 5, 6, 7, 8, and 9. Questions types will include knowledge questions, identification questions, comprehension questions, and analysis questions.

#### Lecture Exam 3

Seventy-five (75) questions will be primarily multiple choice, but may also include true or false, matching, and picture identification. They will cover Chapters 10, 11, 12, and 13.

Questions types will include knowledge questions, identification questions, comprehension questions, and analysis questions.

Lecture Final Exam

Seventy-five (75) questions will be primarily multiple choice, but may also include true or false, matching, and picture identification. They will cover Chapters 14, 15, 16, and 17. Questions types will include knowledge questions, identification questions, comprehension questions, and analysis questions.

Laboratory Midterm Exam

Fifty (50) multiple choice identification questions scattered about 25 stations. They will cover Exercises 1, 2, 3, 4, 5, 6, and 7.

Laboratory Final Exam

Fifty (50) multiple choice identification questions scattered about 25 stations. They will cover Exercises 8, 10, 11, 12, and 13.

Laboratory Reports

Written reports at the end of each lab exercise (including pre-labs) are due the day of the exercise, unless notified.

Mastering Biology Assignments There are seventeen assignments, each corresponding to chapters in our textbook that will be covered in this course. Assignments contain 20-40 questions that are taken online. The assignments open for completion immediately after the lecture for that chapter is given. Assignments will be due one week later up until class time. The last three assignments will be counted as bonus points.

**Weighting of Assessments:**

Lecture Exams, Total	50% of your final grade (12.5% for each exam)
Lab Practicals	16.7% of your final grade (8.35% for each practical)
Lab Reports	8.3% of your final grade (0.7% for each report)
Mastering Assignments	23.3% of your final grade (1.7% for each assignment)

**Grading of Assessments:**

Lecture Exams: Each of the four lecture exams is worth 75 points for a total of 300 points towards your final grade point total. Each correct answer is worth one point.

Laboratory Practicals: Each of the two lab practicals is worth 50 points for a total of 100 points towards your final grade point total. Each correct answer is worth one point.

Lab Reports: All of the 12 lab reports together are worth 60 points towards your final total grade points. Each report (including pre-lab) turned in at the at the end of the class period the exercise is assigned can receive up to five points. The reports will be graded upon completeness. Also a half point will be deducted for each class period the report is overdue [e.g. a report turned in at the end of the due date, can receive 5 points; A report

turned in during the next lecture date, can only receive a maximum of 4.5 points; A report turned in during the following lab period, can only receive a maximum of 4 points].

**Mastering Assignments:** All of the 17 Mastering Assignments collectively will be worth 140 points toward your final grade point total. There will be a total of 465 questions. Each question is worth .366 points giving a total of 170 points. Anything over 140 points will be added to your final grade point total as bonus points.

You will have three opportunities to answer a question correctly. However, each additional attempt is penalized  $\frac{1}{4}$  point. [Correctly answering a question on the first try = 1 point; on the second try = .75 points; on the third try = .50 points]. If the question is not answered correctly within three tries = 0 points.

**Final Grade Calculation:** There is a total of 600 points to be earned during the semester. Your final grade percentage will be determined by adding all points earned from the assessments (plus extra credit) divided by 600.

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	537 - 600
80 - 89	B	477 - 536
70 - 79	C	417 - 476
60 - 69	D	357 - 416
0 - 59	F	0 - 356

### 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 students' 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 (June 24, 2013 4:30 pm). 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