



Department: Life Sciences (Biology)

**Anatomy and Physiology 1 (Lecture)  
SUMMER Schedule 2017  
BIOL 2301 Class Number 2301-248 (13615)**

Course location and times:	Stafford – Scarcella Center Campus Mon/ Wed Class, 5:30 pm-8:30 pm. Rm. W118
Course semester credit hours:	4 Semester Credit hours
Course contact hours:	96 total hours; 48 hrs laboratory lecture, 48 hrs laboratory works
Course length:	8 weeks
Instruction type:	Web-Enhanced, Eagle online

Instructor:	Dr. Sara Williams, M.B.A., M.D.
Email address:	<a href="mailto:sara.williams@hccs.edu">sara.williams@hccs.edu</a>
Office location and hours:	By appointment

Course Description:

A course of study covering the structure and function of human cells, tissues and organ systems including the integumentary, skeletal, muscular and nervous systems.

Course Prerequisites:

English 1301 either taken or co-enrolled, Biology 1406 (General Biology) is strongly recommended. Over 60% of the students who have not had 1406 Fail to complete this course successfully. This course will require about 300 hours of Study.

PLEASE SEE VIDEO- <https://www.youtube.com/watch?v=x9TxKLMbDX8Y>

The Instructor reserves the right to modify this syllabus when necessary with adequate notification to the students.

Course Goals:

This course is intended for students majoring in one of the physical sciences or life sciences, engineering, or for students who are pursuing pre-professional programs in medicine, dentistry, pharmacy, veterinary medicine, or other health programs. The course is also beneficial to students who are **preparing themselves for higher level science courses in their respective curricula**. You will be expected to participate in class. It is required!!!!

Course Calendar:

<b>Week 1</b>	<b>Introduction to Anatomy and Physiology I</b>  <b>CH. 1 Major themes of Anatomy and Physiology; Atlas A General Orientation to Human anatomy</b> <b>CH. 2 The Chemistry of Life</b> <b>CH. 3 Cellular Form and Function</b>
<b>2</b>	<b>CH. 3 Cellular Form and Function continued</b> CH. 4 Genetics and Cellular Functions Lecture Exam. # 1 and Quiz # 1- CH.1-4
<b>3</b>	CH. 5 Histology (Tissue) CH. 6 The Integumentary System Lecture Exam and Quiz Chapters CH. 7 Bone Tissue Lecture Exam and Quiz Osseous Tissue
<b>4</b>	Mid-Term CH.5-7 CH. 8 The Skeletal System CH. 9 Joints CH. 10 CH. 11 Muscular System Muscular Tissue Lecture Quiz
<b>5</b>	CH. 8 The Skeletal System CH. 9 Joints CH. 14 Brain and Cranial Nerves <b>Lecture Quiz</b>




THE INSTRUCTOR RESERVES THE RIGHT TO CHANGE THE CONTENT SCHEDULE BASED ON THE NEEDS WITH ADVANCED NOTICE TO THE CLASS.

Class Calendar by Date:

See [official calendar](#) on our HCC website.

**Instruction Methods:**

The primary focus of the course will be on instructor lectures including illustrations, animations, and group activities and assigned textbook readings. Lecture material will correspond to the topics covered in the **required textbook**, but your instructor may include more detail on certain topics. Topics and concepts covered during lecture or included in the **assigned reading will be included in exams**.

Laboratory sessions will include exercises from a required electronic laboratory manual that will be purchased online. Lecture may be included during lab sessions to clarify or detail concepts.

**Bluedoor Online** Resources will be utilized for chapter and laboratory assessments/quizzes.

Our classroom management system is Eagle Online 2, the HCC specific depository to course content. This site will include **direct links to the Bluedoor assessments and online lab manual**. **Note** that you will not be able to log into the website (Eagle Online) until the beginning of the semester.

Clinical Correlates will be reviewed and discussed in groups or individually for 100 pts total.

Student Assignments:	Students are required to read assigned chapters and to complete Bluedoor assessments/quizzes. Clinical correlation/critical thinking assignments will also be assigned during the semester. <b>Additional announced and unannounced quizzes during lecture or lab may be conducted throughout the semester.</b>
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<p>Student Assessments:</p>	<p>Students will be <b>assessed via lecture</b> and laboratory examinations, <b>chapter quizzes, clinical correlation/critical thinking questions and comprehensive final lecture and lab examinations.</b> Additionally, there is a required <b>Final Exit examination</b> at the end of the semester.</p> <p>Web resources: Eagle Online 2- classroom management system</p> <p>HCC-SW departmental website</p>
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<p>Instructional Materials:</p>	<p>Textbook:  This is the last semester to use the Martini book; next semester HCC-SW will switch to the latest edition of the Saladin AP textbook.</p> <p>Fundamentals of Anatomy &amp; Physiology, Ninth Edition, Frederic H. Martini, Judi L. Nath, Edwin F. Bartholomew, ISBN# 1256112291  This comes as a packet including software and atlas. A binder ready version includes the same package except that the “book” consists of printed pages that is “binder ready” and costs less.  ISBN# 1256134317</p> <p>Alternatively: Openstax college, an open source project that develops free online resources including textbooks for college students has produced a two semesters Anatomy and Physiology textbook that can be used. Students should feel comfortable with having an electronic (PDF) version of a textbook. You can register and download the FREE textbook here:  <a href="http://openstaxcollege.org/textbooks/anatomy-and-physiology">http://openstaxcollege.org/textbooks/anatomy-and-physiology</a></p> <p>Lab book:  Bluedoor Online Lab Manual:  Purchase at <a href="http://www.bluedoorlabs.com">www.bluedoorlabs.com</a> (<b>please wait until first day for purchase</b>)</p> <p>I will demonstrate our classroom management systems (where our class content will be located) on our first day of class (lab) and provide detailed instructions on what you should expect. You will be utilizing an <b>online Lab manual, Bluedoor Labs</b> for lab content including exercise primers, assessments (quizzes) and the exercises themselves.  Please go to <a href="http://bluedoorlabs.com">bluedoorlabs.com</a> and purchase an account. Type in your <b>first</b> and <b>last names</b> in the appropriate boxes and click “<b>register</b>”. You should use a <b>credit card to pay</b> for your access. If you are on <b>financial aid</b>, you will <b>first have to purchase a registration key at the bookstore</b>, then utilize that key code to complete the purchase.</p> <p>In the registration process you will have to use an <b>email address</b> that you use regularly as you will be sent two emails following registration, one that confirms your purchase and another containing an activation link that will complete the access acquisition. You will be asked to create a <b>password</b> and <b>confirm it</b>, then select your <b>school</b> and <b>course</b>. As you being to type <b>Houston Community College</b> it should begin to auto-fill. You will then see a <b>course</b> drop down menu and you can then select your <b>instructor</b> and <b>class</b>.  You next choose your <b>payment method</b>. <b>NOTE, only those people on financial aid should purchase the registration key in the bookstore. Everyone else should use a credit card.</b> Complete the purchase process and await your confirmation email with access link.  If you are now taking AP2 lab and already have a bluedoor account from AP1 Lab, then log in to your typical account and on the right hand</p>
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<p>HCC Policy Statement: ADA</p>	<p>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 the respective college at the beginning of each semester. Instructors are authorized to provide only the accommodations requested by the Disability Support Services Office. If you have any special needs or disabilities that may affect your ability to succeed in college classes or participate in any college programs or activities, please contact the DSS office for assistance. At Southwest College, contact:  Dr. Becky Hauri  5407 GulftonHouston, Texas 77081Phone: 713-718-7909Fax: 713-718-7781TTY: 713-718-7909</p> <p>Distance education students should look at the DE section for more detail: <a href="http://www.hccs.edu/hccs/future-students/disability-services">http://www.hccs.edu/hccs/future-students/disability-services</a></p>
<p>HCC Policy Statement: Academic Honesty</p>	<p>Students are responsible for conducting themselves with honor and integrity in fulfilling course requirements. Disciplinary proceedings may be initiated by the college system against a student accused of scholastic dishonesty. Penalties can include a grade of "0" or "F" on the particular assignment, failure in the course, academic probation, or even dismissal from the college. Scholastic dishonesty includes, but is not limited to, cheating on a test, plagiarism, and collusion.</p>

<p>HCC Policy Statement: Student attendance, 3-peaters, withdrawal deadline</p>	<p><b>Attendance</b> Students are expected to attend classes regularly. Students are responsible for materials covered during their absences, and it is the student's responsibility to consult with instructors for make-up assignments.</p> <p>Instructors check class attendance daily. A student may be dropped from a course for excessive absences after the student has accumulated absences in excess of 12.5% of the hours of instruction (including lecture and laboratory time). Note that 12.5% is approximately 4 classes or labs for a 4-semester hour course.</p> <p>Habitual tardiness will not be tolerated. Students are expected to be in attendance for the entirety of the scheduled class and are responsible for completing assignments scheduled during their absence/s. It is the responsibility of each student to amend their professional/personal schedule to meet the class schedule</p> <p><b>Repeaters</b> Students who repeat a course for a third or more times may soon face significant tuition/fee increases 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.</p> <p><b>Withdrawals</b> Withdrawal from the course after the official day of record (see current catalog) will result in a final grade of "W" on the student transcript and no credit will be awarded. It is the student's responsibility to initiate and complete a request for withdrawal from any course. Students will be required to formally request a drop from their instructors prior to the administrative drop date deadline (<b>See online course calendar</b>). Abandoning the course or failing to formally drop, will result in a grade being given based on the work completed for the entire course (including missed exams).</p> <p>The State of Texas has begun to impose penalties on students who drop courses excessively. For example, if you repeat the same course more than twice, you have to pay extra tuition. Beginning in fall 2007, the Texas Legislature passed a law limiting first time entering freshmen to no more than SIX total course withdrawals throughout their educational career in obtaining a certificate and/or degree.</p> <p>Receiving a "W" in a course may affect the status of your student Visa. Once a W is given for the course, it will not be changed to an F because of the visa consideration. Please contact the International Student Office at 713-718-8520 if you have any questions about your visa status and other transfer issues</p>
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**Instructor Requirements:**

## Basic requirements

Students should be on time for class and be prepared with required materials including textbook and lab manual. Full class attendance is required including lecture and lab portions. Full attention during lecture and lab is required.

**Phones/electronic devices**

Absolutely no phone or other personal electronic devices are to be used during class (lecture and lab). This includes making or taking a call, reviewing messages, texting, playing games, checking email, surfing the web, anything that involves a phone or other personal electronic device. If your work or family situation requires that you be available via phone, your phone can be on vibrate mode and you can take the call during our regular scheduled breaks or you can exit the class to review the call. Notify your friends, family, employers, and anyone else who regularly contacts you that you will be in class and that you should be contacted only when necessary. The taking of calls during class is not only disruptive but it is also discourteous to classmates and the instructor.

**Entering and exiting the lecture room or lab room is not permitted once exams have begun.** Please be sure to use bathroom **before** or **after** examinations. See specific information for DE students at link on page 10 of syllabus.

**Department**

Students are expected to conduct themselves as adults. This includes courteous and respectful behavior towards instructor and classmates. Disruptive behavior or any behavior that interferes with any educational activity being performed by the instructor will not be allowed. Additionally, no student may interfere with his/her fellow students' right to pursue their academic goals to the fullest in an atmosphere appropriate to a community of scholars. Disruptive behavior may result in removal from the class.

**Lab policy**

Lab safety is stated in lab manual. Lab rules and regulations will be discussed during the first lab and will be adhered to at all times. Each student is responsible for cleaning up after labs, this includes glassware, utensils, specimens/models and other material used during lab time (no, clean up is not covered by your lab fees).

Program/Discipline Requirements	2301 Exit (departmental) Exam
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HCC Grading Scale:	<p>A = 90-100%  B = 80-89%  C = 70-79%  D = 60-69%  F = less than 60%  FX= F due to lack of attendance</p> <p><b>Students who stopped attending class:</b> The Department of Education now requires that we make a distinction between an “earned” grade of “F” (i.e. for poor performance) and a grade of “F” due to a lack of attendance. To make that distinction, we have created a new grade, “FX” for failure due to lack of attendance. Faculty will not be allowed the option of submitting a grade change form changing the grade of FX (or F) to W, if the student stopped attending class.</p>
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**Instructor Grading Criteria:**

Students must adhere to testing schedule. Failure to take a test (lab or lecture) will result in a “0” for the missed exam. Exceptions include work, family, or personal (health) emergency, and must be documented.

Only one make-up exam per semester is allowed (with proper documentation) and must be arranged with instructor ASAP. There is no repeating of examinations or “dropping” of lowest grade/s.

**EGSS3---Evaluation for Greater Learning Student Survey System:**

At Houston Community College, professors believe that thoughtful student feedback is necessary to improve teaching and learning. During a designated time, you will be asked to answer a short online survey of research-based questions related to instruction. The anonymous results of the survey will be made available to your professors and division chairs for continual improvement of instruction. Look for EGSS3 as part of the Houston Community College Student System online near the end of the term.

**Examination format**

Lecture exams will include multiple choice questions and essay/short answer questions. Lab exams will include identification, labeling and short answers reviewing anatomical models and specimens.

Grade Calculation

Lecture Exam 1	100 pts.
Lecture Exam 2	100 pts.
Lecture Exam 3	100 pts.

Lecture Exam 4	100 pts.
Lecture Exam 5	100 pts.
Dept. Exit Exam	100 pts.
Completed Assignments	100 pts.
Quizzes	100 pts.
Clinical cases (9) optional	100 pts.
<b>Final Score</b>	1000 pts. <b>100% weight</b> <u>percentage</u> Exam. 20% Quizzes 20% Lab.Exam. 20% Final Exam. 20% Dept.Exam. 15% Assignments 5%

Course Goals:

This course is intended for students majoring in one of the physical sciences or life sciences, engineering, or for students who are pursuing pre-professional programs in medicine, dentistry, pharmacy, veterinary medicine, or other health programs. The course is also beneficial to students who are preparing themselves for higher-level science courses in their respective curricula.

Program Learning Outcomes:

Program SLO #1 - To recognize, identify, and describe the basic structures and functions associated with most life forms.

Program SLO #2 - To develop basic laboratory techniques appropriate to the field of Biology.

Program SLO #3 - To develop study skills and habits appropriate for pre-professional students interested in health-related fields.

The following Student Learning Outcomes with their associated assessment criteria are not meant to be all-inclusive, but are meant to be used along with all other course learning outcomes and assessment devices (listed under Course Objectives) in the

determination of the student's final course grade. Completion of the specific Student Learning Outcomes listed below, at any assessment grading level, does NOT and will NOT guarantee the student that final course grade at the end of the semester.

Course Student Learning Outcomes:

This course is intended to provide students with a strong foundation in Anatomy and Physiology and is the continuation of Anatomy and Physiology I. In this course, we will study the endocrine system, the cardiovascular system, including heart, blood vessels, the respiratory system, the digestive system, the urinary system including electrolyte and fluid balance, the reproductive system and finally the immune system. The course is vigorous and many will find it very challenging.

1. Students will be able to analyze the circulatory system (including the lymphatic and immune systems) and their components. PSLO#1 and 2
2. Students will be able to understand hormonal control of body systems and homeostasis. PSLO#1
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. PSLO#1
4. Students will be able to analyze, understand and explain the structure and function of the digestive system correlating it with metabolism. PSLO#1
5. Students will be able to analyze and evaluate the structure, function and regulation of the reproductive system. PSLO#1
6. Students will be able to apply the knowledge gained in lab utilizing anatomical models and physiology experiments. PSLO#2
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. PSLO#3

Learning Objectives:

- 1) Consistently able to demonstrate part to function relationship and the interaction of the circulatory, lymphatic and immune systems without the instructor's help.
- 2) Consistently able to demonstrate understanding and application of hormonal control on homeostasis without the instructor's help.
- 3) Consistently able to demonstrate part to function relationship and the interaction of the respiratory/urinary systems with the cardiovascular system without the instructor's help.
- 4) Consistently able to demonstrate part to function relationship involving the digestive system and its correlation with metabolism without the instructor's help.
- 5) Consistently able to demonstrate interactions of parts to functions involving the reproductive system without the instructor's help.
- 6) Consistently prepared and always able to demonstrate skills using the body system models and laboratory techniques at the classroom standard.
- 7) Consistently uses online tools to prepare for class, always ready for classroom discussions and instructor's Q&A sessions, completes all online quizzes prior to due dates.

**ASSESSMENT RUBRICS**

**ANATOMY & PHYSIOLOGY II - BIOLOGY 2402**

Performance Factors

Rating Scale

	F	D	C	B	A
1) Students will be able to analyze the circulatory system (including lymphatic and immune systems) and their components. <i>PSLO#1 and 2</i>	Never able to demonstrate the relationship between structure and function as well as the interactions of the circulatory, lymphatic and immune systems without the instructor's help.	Seldom able to demonstrate the relationship between structure and function as well as the interactions of the circulatory, lymphatic and immune systems without the instructor's help.	Occasionally able to demonstrate the relationship between structure and function as well as the interactions of the circulatory, lymphatic and immune systems without the instructor's help.	In most instances able to demonstrate the relationship between structure and function as well as the interactions of the circulatory, lymphatic and immune systems without the instructor's help.	Consistently able to demonstrate the relationship between structure and function as well as the interactions of the circulatory, lymphatic and immune systems without the instructor's help.
2) Students will be able to understand hormonal control of body systems and homeostasis. <i>PSLO#1</i>	Never able to demonstrate understanding and application of hormonal control of homeostasis without the instructor's help.	Seldom able to demonstrate understanding and application of hormonal control of homeostasis without the instructor's help.	Occasionally able to demonstrate understanding and application of hormonal control of homeostasis without the instructor's help.	In most instances able to demonstrate understanding and application of hormonal control of homeostasis without the instructor's help.	Consistently able to demonstrate understanding and application of hormonal control of homeostasis without the instructor's help.

Performance Factors

Rating Scale

	F	D	C	B	A
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. <i>PSLO#1</i>	Never able to demonstrate the relationship between structure and function and the interaction of the respiratory/urinary systems with the cardiovascular system without the instructor's help.	Seldom able to demonstrate the relationship between structure and function and the interaction of the respiratory/urinary systems with the cardiovascular system without the instructor's help.	Occasionally able to demonstrate the relationship between structure and function and the interaction of the respiratory/urinary systems with the cardiovascular system without the instructor's help.	In most instances able to demonstrate the relationship between structure and function and the interaction of the respiratory/urinary systems with the cardiovascular system without the instructor's help.	Consistently able to demonstrate the relationship between structure and function and the interaction of the respiratory/urinary systems with the cardiovascular system without the instructor's help.
4) Students will be able to analyze, understand and explain the structure and function of the digestive system correlating it with metabolism. <i>PSLO#1</i>	Never able to demonstrate the relationship between structure and function of the digestive system and its correlation with metabolism without the instructor's help.	Seldom able to demonstrate the relationship between structure and function of the digestive system and its correlation with metabolism without the instructor's help.	Occasionally able to demonstrate the relationship between structure and function of the digestive system and its correlation with metabolism without the instructor's help.	In most instances able to demonstrate the relationship between structure and function of the digestive system and its correlation with metabolism without the instructor's help.	Consistently able to demonstrate the relationship between structure and function of the digestive system and its correlation with metabolism without the instructor's help.

## Performance Factors

## Rating Scale

	F	D	C	B	A
5) Students will be able to analyze and evaluate the structure, function and regulation of the reproductive system. <i>PSLO#1</i>	Never able to demonstrate the relationship between structure and function of the reproductive system without the instructor's help.	Seldom able to demonstrate the relationship between structure and function of the reproductive system without the instructor's help.	Occasionally able to demonstrate the relationship between structure and function of the reproductive system without the instructor's help.	In most instances able to demonstrate the relationship between structure and function of the reproductive system without the instructor's help.	Consistently able to demonstrate the relationship between structure and function of the reproductive system without the instructor's help.
6) Students will be able to apply the knowledge gained in lab utilizing anatomical models and physiology experiments. <i>PSLO#2</i>	Never prepared and never able to demonstrate skills using the anatomical models; unable to understand or analyze physiology experiments.	Seldom prepared and often not able to demonstrate skills using the anatomical models and seldom able to understand or analyze physiology experiments.	Occasionally prepared and sometimes able to demonstrate skills using the anatomical models; occasionally able to understand or analyze physiology experiments.	In most instances prepared and often able to demonstrate skills using the anatomical models; usually able to understand and analyze physiology experiments.	Consistently prepared and always able to demonstrate skills using the anatomical models; able to understand and analyze 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. <i>PSLO# 3</i>	Never uses online tools to prepare for class, never ready for classroom discussions and instructor's Q&A sessions. Never takes online quizzes by the due date and are always past due. Does not participate in class discussions.	Seldom uses online tools to prepare for class, often not ready for classroom discussions and instructor's Q&A sessions, completes some online quizzes by the due date and others are past due. Often not interactive with the class.	Occasionally uses online tools to prepare for class, sometimes ready for classroom discussions and instructor's Q&A sessions, completes some online quizzes by the due date.	In most instances uses online tools to prepare for class, often ready for classroom discussions and instructor's Q&A sessions, completes all online quizzes by the due date.	Consistently uses online tools to prepare for class, always ready for classroom discussions and instructor's Q&A sessions, completes all online quizzes prior to due date.

PSLO = Program Student Learner Outcomes