



HOUSTON COMMUNITY COLLEGE  
**BIOL 2102 – ANATOMY & PHYSIOLOGY 2 LAB**  
**CRN # 74796**  
SUMMER SEMESTER, 2018 – SECOND TERM (S2)  
July 9, 2018 – August 11, 2018  
**Dr. D. Grigsby, DC, JD, LLM**

**Professor: Dr. D. Grigsby, DC, JD, LLM**

**Office:** Codwell Building, Room 232 (CODW 232)  
Northeast College, 555 Community College Dr.

**Phone:** (713) 718-7149

**Email:** within Canvas Course for anything related to class

**Office Hours and Days:** Tues & Thurs 2pm-3:30pm, and by appointment.

**Lab Class:** Monday - Thursday 6p – 8:15pm in LHSB.316, Central Campus

**To Contact Distance Education:**

Online: <http://www.hccs.edu/online/>

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**COURSE DESCRIPTION:** “Anatomy and Physiology 2” is the second part of a two-course sequence. It is a study of the structure and function of the human body including the following systems: endocrine, cardiovascular, immune, cardiovascular, immune, lymphatic, respiratory, digestive, (including nutrition), urinary (including fluid and electrolyte balance), and reproductive (including human development and genetics). Emphasis is on interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis.

The **lab** for Anatomy and Physiology 2 provides a hands-on learning experience for exploration of human system components and basic physiology. Those students entering the allied health programs will find the material covered in this course to be essential. The required laboratory manual will provide information that the student will need to understand the complexity of human anatomy and physiology. Math 0106 is a Biology prerequisite. General Biology I is highly recommended as prerequisites for this course. This course requires a basic understanding of biology, math, and chemistry.

Corequisite/Prerequisite: Currently in, or already completed, Biol 2302 Lecture course. Completion of 2301 and 2101, or in the alternative, 2401 (AP1 Lecture and Lab).

**COURSE OBJECTIVES:**

**Program Student Learning Outcomes (PSLOs) for the Biology Discipline**

1. Will display an understanding of biological systems and evolutionary processes spanning all ranges of biological complexity, including atoms, molecules, genes, cells, and organisms.
2. Will integrate factual and conceptual information into an understanding of scientific data by written, oral and/or visual communication. (This may include successful completion of a course-specific research project or a case study module).
3. Will demonstrate proficiency and safe practices in the use of laboratory equipment and basic laboratory techniques.
4. Will apply principles of the scientific method to problems in biology in the collection, recording, quantitative measurement, analysis and reporting of scientific data.

**Course Student Learning Outcomes (CSLOs):**

Completion of the specific Student Learning Outcomes listed below does NOT and will NOT guarantee the student any specific final course grade at the end of the semester!

1. Apply appropriate safety and ethical standards.
2. Locate and identify anatomical structures.
3. Appropriately utilize laboratory equipment, such as microscopes, dissection tools, general lab ware, physiology data acquisition systems, and virtual simulations.
4. Work collaboratively to perform experiments.
5. Demonstrate the steps involved in the scientific method.
6. Communicate results of scientific investigations, analyze data and formulate conclusions.
7. Use critical thinking and scientific problem-solving skills, including, but not limited to, inferring, integrating, synthesizing, and summarizing, to make decisions, recommendations and predictions.

**Course Required Resources:**

**LAB MANUAL:** BIO 2102 – HUMAN ANATOMY & PHYSIOLOGY II LAB MANUAL, 5<sup>th</sup>

Ed.; Edited By Wagle, et al., Hayden-McNeil/Macmillan Publishing, 2017.

ISBN: 9780738099392

**ONLINE CLASSROOM:** <https://eagleonline.hccs.edu/login/ldap> This is where you will find your instructional materials for the course. This is also where we communicate via email – the Canvas “inbox”.

## **Recommended Resources:**

**STUDY RESOURCES:** **ANATOMY COLORING BOOK**, Kapit, W. and Elson, L.; Pearson Publishing.

**ANATOMY COLORING BOOK**, Netter; Elsevier Publishing.

### **COURSE INFORMATION:**

This Lab course is held face-to-face in the CE Learning Hub Science Building (LHSB), Lab Room 316. You will work individually and in lab groups to complete hands-on activities, including specimen dissection.

This lab course is an integration of 3 PARTS: 1) a standard Lab Manual, 2) in-class lab instruction, assessment, and participation, and 3) in-person hands-on Practical Examinations.

The online classroom set up in Canvas may include background notes on AP-2 lecture material, which you might find useful to your course prep. Any such provided notes are not designed to be a comprehensive review, but rather an overview of the material covered in the text with added insights provided by your instructor.

**\*\*Please read through the Lab Background Info & Procedures PRIOR to class time – this will ensure that you complete your assignments timely.**

**\*\* Quizzes for each exercise are due at the start of the respective class – after 5 minutes, they will be counted as late.**

**\*\* Manuals & Exercises/Reports will be due at their respective Lab Practicals at the start of class.**

### **IMPORTANT SEMESTER DATES:**

Week of July 9, 2018	Classes Begin
July 12, 2018	Official Date of Record
July 30, 2018	Last Day to Withdraw

**\*\* TENTATIVE WEEKLY LAB & PRACTICAL SCHEDULE:**

Date...	Lab Exercises/Topics – to do IN-CLASS
<b>1 – 7/9</b> <b>M</b> <b>6pm</b>	<p style="text-align: center;"><b>INTRO</b></p> <p style="text-align: center;">(1) LAB SAFETY            (2) Human Body ORGANIZATION &amp; TERMINOLOGY            (3) Review of M'SCOPE &amp; TISSUES</p>
<b>2 – 7/10</b> <b>T</b> <b>6pm</b>	<p style="text-align: center;"><i>Cont. (1 – 3)</i></p>
<b>3 – 7/11</b> <b>W</b> <b>6pm</b>	<p style="text-align: center;"><b>(4) ENDOCRINE</b></p>
<b>4 – 7/12</b> <b>Th</b> <b>6pm</b>	<p style="text-align: center;"><i>Cont.</i></p>
<b>5 – 7/16</b> <b>M</b> <b>6pm</b>	<p style="text-align: center;">Cardiovascular System, to include: <b>(5) BLOOD, (6) HEART,</b>  <b>(7) Cardiovascular Physiology - ELECTROCARDIOGRAPHY</b></p>
<b>6 – 7/17</b> <b>T</b> <b>6pm</b>	<p style="text-align: center;"><i>Cont. &amp; *Dissection</i></p>
<b>7 – 7/18</b> <b>W</b> <b>6pm</b>	<p style="text-align: center;"><b>(8) BLOOD VESSELS &amp; (9) LYMPHATICS</b></p>
<b>8 – 7/19</b> <b>Th</b> <b>6pm</b>	<p style="text-align: center;"><i>Review &amp; Complete Endocrine, Cardiovascular &amp; Intro Labs</i></p>
<b>9 – 7/23</b> <b>M</b> <b>6pm</b>	<p style="text-align: center;"><b>7pm</b> – Practical Test-1:  <b>Intro, Endocrine, Cardiovascular (all), Lymphatics</b></p>
<b>10 – 7/24</b> <b>T</b> <b>6pm</b>	<p style="text-align: center;"><b>(10) RESPIRATORY System</b>  <i>*Dissection</i></p>

11 – 7/25 W 6pm	(11) URINARY System <i>*Dissection</i>
12 – 7/26 Th 6pm	(12) URINALYSIS
13 – 7/30 M 6pm	<i>Review &amp; Complete Respiratory and Urinary</i>
14 – 7/31 T 6pm	<b>7pm</b> – Practical Test-2: Respiratory & Urinary Systems
15 – 8/1 W 6pm	(13) DIGESTIVE System
16 – 8/2 Th 6pm	<i>Cont.</i>
17 – 8/6 M 6pm	(14) MALE & (15) FEMALE REPRODUCTIVE
18 – 8/7 T 6pm	<i>Cont.</i>
19 – 8/8 W 6pm	<i>Review &amp; Complete Digestive and Reproductive</i>
20 – 8/9 Th 6pm	<b>7pm</b> – Practical Test-3: Digestive & Reproductive Systems
	<i>* Dissection will be done, provided we receive the specimen timely.</i>
	<i>**The instructor reserves the right to make changes to this schedule when required.</i>

## **LABORATORY PRACTICAL EXAMS:**

There will be 3 Lab-Practical tests. These hands-on laboratory tests cover the material presented in the laboratory manual and in the laboratory while performing the exercises. Additionally, students must complete and turn-in the labs assignments for each exercise as assigned. The **Practical Test average will constitute 65% of the final grade** for the course.

Check the course Weekly Schedule above for the Practical Exam dates. The weekly schedule above outlines the *tentative* course schedule. It is your responsibility to check the calendar, review the online information/announcements and note any meeting or testing updates.

**LAB EXERCISES:** These are the exercises in your Lab Manual, to be turned in at the Practical dates for grading. You may also be assigned miscellaneous assignments throughout the term. The average of any Lecture HW/assignments given during the term **will constitute 20% of the final lecture grade** for the course.

**QUIZZES:** Pre-Lab Quizzes for each exercise are due at the start of the respective class – after 5 minutes, they will be counted as late. Their completion will be **worth 15% of your final course grade**. ALSO – there may be in-class Quizzes at various points during the term.

**Potential for Extra credit:** There may be an opportunity for bonus during the term, which can improve your earned course grade by up to a maximum of 5%. Bonus opportunities in the past have included Library Resources material, visits to city museums for specifically identified exhibits, and participation in Science club and other campus organizations/presentations. When/if such opportunities arise, I will post them under the Professor Announcements on Canvas with applicable instructions for completion.

## **GRADE COMPUTATION:**

Grades will be based on percentages of points earned by the student.

3 Lab Practical grades will contribute 65% of students' grades.

Pre-Labs & Quizzes will constitute 15% of students' grades

Lab Exercises will constitute 20% of students' grades.

SCALE:	A = 90 – 100%
	B = 80 – 89.5%
	C = 70 – 79.5%
	D = 60 – 69.5%
	F = Below 60%

\*\*A grade of "FX" is assigned to students who stop attending class but do not withdraw before the deadline; such grade is treated the exactly the same as a grade of "F" in terms of GPA, probation, suspension, academic progress, and Financial Aid.

## **LAB TESTING POLICIES:**

When a lab practical exam is missed, **NO MAKE-UP EXAMS WILL BE GIVEN**. If you miss a lab exam, you will receive a zero that will be used as one of the Lab practical grades. In fairness to other students, any missed exams will be counted as 0 points, meaning that when computing your final grade, missed exam points (0 out of 100 available points) will be averaged into your other grades. A grade of zero will greatly jeopardize your final grade and may cause you to get an undesirable grade or fail the entire course. All material covered up to that point will be fair game for the tests. The lab schedule and the tests dates are provided.

### **→ EARLY ALERT**

HCC has instituted an Early Alert process by which administration or your professor may “alert” you and DE counselors that you might fail a class because of excessive absences and/or poor academic performance.

### **→EGLS<sub>3</sub> (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 near the end of the term, 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 department chairs for continual improvement of instruction. Go to [www.hccs.edu/egls3](http://www.hccs.edu/egls3) for more information.

## **RULES & REGULATIONS:**

**Class attendance is mandated by the state.**

**Adult behavior is expected within the classroom.**

All students in HCC Distance Education courses are required to follow all HCC Policies & Procedures, the Student Code of Conduct, the Student Handbook, and relevant sections of the Texas Education Code when interacting and communicating in classroom with faculty and fellow students. Students who violate these policies and guidelines will be subject to disciplinary action that could include denial of access to course-related email, discussion groups, and chat rooms or being removed from the class.

**Dresscode.**

All students should come to lab appropriately dressed for the purposes of Lab Safety and Professionalism. Anyone not so dressed will be asked to don a labcoat.

## **ACADEMIC INTEGRITY**

This instructor is committed to a high standard of academic integrity in the academic community. In becoming a part of the academic community, students are responsible for honesty and independent effort. Failure to uphold these standards includes, but is not limited to, the following: plagiarizing written work or projects, cheating on exams or assignments, collusion on an exam or project, and misrepresentation of credentials or prerequisites when registering for a course. Cheating includes looking at or copying from another student's exam, orally communicating or receiving answers during an exam, having another person take an exam or complete a project or assignment, using unauthorized notes, texts, or other materials for an exam, and obtaining or distributing an unauthorized copy of an exam or any part of an exam. Plagiarism means passing off as his/her own the ideas or writings of another (that is, without giving proper credit by documenting sources). Plagiarism includes submitting a paper, report, or project that someone else has prepared, in whole or in part. Collusion is inappropriately collaborating on assignments designed to be completed independently. These definitions are not exhaustive. When there is clear evidence of cheating, plagiarism, collusion, or misrepresentation, disciplinary action may include but is not limited to requiring you to retake or resubmit an exam or assignment, assigning a grade of zero or "F" for an exam or assignment; or assigning a grade of "F" for the course. Additional sanctions including being withdrawn from the course, program or expelled from school may be imposed on a students who violate the standards of academic integrity.

## **REPEATING COURSES (THREE-PEAT RULE)**

As a result of recent Texas legislative changes, please be advised that HCC is charging additional tuition for students who enroll in the same class three or more times at HCC. While it is the hope of HCC that students will be successful in their first attempt at classes, we realize that life demands, academic struggles, and other issues may result in students needing to take the same class more than once. Speaking with an advisor will help you develop student success skills, improving your overall academic performance. If a student repeats a course in which a grade (A-F) has been received, the highest grade received at HCC is the permanent grade for the course and will be used in computing the GPA. All grades earned in a given course will be reflected on the transcript. Other colleges may compute the GPA differently than HCC.

## **HCC COURSE WITHDRAWAL POLICY**

Students must withdraw by the withdrawal deadline in order to receive a "W" on a transcript. Final withdrawal deadlines vary each semester and/or depending on class length, please visit the online Academic Calendar, any HCC Registration Office, or any HCC advisor to determine class withdrawal deadlines.

Be certain you understand HCC policies about dropping a course and consult with a counselor/advisor to determine if withdrawing is in your best interest. It is your responsibility to withdraw officially from a class and prevent an “F” from appearing on your transcript. Senate Bill 1231 limits the number of W’s a student can have to 6 classes over the course of their entire academic career. This policy is effective for students entering higher education for the first time in Fall 2007 and subsequent terms. Withdrawals accumulated at any other Texas public higher education institution count toward the 6 course total. Withdrawals for certain circumstances beyond the students control may not be counted toward the 6-drop limit.

In addition, withdrawing from a course may impact your financial aid award or eligibility. Contact the Financial Aid Office or website to learn more about the impact of withdrawing on financial aid.

**An instructor will no longer give a grade of “W” to any student after the official drop date – this is the student’s responsibility.**

## **HOW TO DROP**

- If a student decides to withdraw from a class upon careful review of other options, **the student can withdraw online prior to the deadline through their [HCC Student Center](#).**
- HCC may withdraw students for excessive absences **without notification.**
- **Students should check HCC’s Academic Calendar by Term for withdrawal dates and deadlines.** Classes of other duration (flex-entry, 8-weeks, etc.) may have different final withdrawal deadlines. Please contact the HCC Registrar’s Office at 713.718.8500 to determine mini-term class withdrawal deadlines.

## **RESOURCES AVAILABLE TO YOU:**

- ✓ The Library has **Chromebooks available for check-out** for the entire term. Check with your campus library. *NOTE: Not all software programs or online HW portals are compatible. Be sure to download applicable browsers. Refer to Internet Outage policy and course notice that tech problems do not excuse missing of deadlines.*
- ✓ Biology **Lab Study Pages** – cover a variety of science topics, including AP.  
[www.hccs.edu/biologylabs](http://www.hccs.edu/biologylabs)
- ✓ HCC provides **FREE ONLINE TUTORING** 24 hours/day in writing, math, science, and other subjects. HCC Online Tutoring site: <http://hccs.Upswing.io>. Use your student ID or HCC e-mail address to create an account. Instructions, including a video, are provided to make you familiar with the capabilities of this service. **ALSO, ON-CAMPUS TUTORING** can be found at all campuses. Access information at: <http://www.hccs.edu/resources-for/current-students/tutoring/>.
- ✓ **COUNSELING SERVICES** – Counseling services are available to students who are experiencing difficulty with academic issues, selection of college major, career planning,

disability accommodations, or personal issues. <http://learning.hccs.edu/programs/counseling>

Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact the Dean of Students for support.

**Furthermore, please notify the professor if you are comfortable in doing so.**

✓ The HCC LIBRARIES make available first-rate information resources to all HCC students. A special website pulls together all the tools DE students will need to get their research rolling. Visit Library Resources specifically for Distance Education students.

✓ DE students also have access to a set of Library “**BEGIN RESEARCH**” FAQ's and instructional modules designed to introduce our off-campus students to HCC's wide variety of library resources. The self-paced material and accompanying quizzes are estimated to take 2-5 hours to complete. Helpful tutorial links and tip sheets are included that address specific library resources.

In order to sign-up for the Library “**BEGIN RESEARCH**” material, students just need to go to:

<http://library.hccs.edu/brtutorial>

Once a student has completed the material successfully by passing an Exit Quiz with a score of 70% or above, they will receive email notification and the DE instructor noted on the student's sign-up will be notified as well. It generally takes a student 3-4 hours to completely go through the material and complete the included quizzes.

***\*\*I DO ASSIGN BONUS CREDIT FOR COMPLETING THE LIBRARY “BEGIN RESEARCH” MATERIAL...***

## **ADDITIONAL INSTRUCTOR AND INSTITUTIONAL POLICIES**

### **→AMERICANS WITH DISABILITIES ACT STATEMENT**

HCCS is dedicated to providing the least restrictive environment for all students. We promote equity in academic access through the implementation of reasonable accommodations as required by the Vocational Rehabilitation Act of 1973, Title V, Section 504 and the Americans with Disabilities Act of 1990 (ADA) which will enable students with disabilities to participate in and benefit from all post-secondary educational activities.

Students who require reasonable accommodations for documented disabilities must call the SE Disability Services Office at (713) 718-7218 to make necessary arrangements. Instructors are only authorized to provide accommodations requested by the Disability Support Services Office. Upon completion of this process, please notify your instructor as soon as possible and preferably before the end of the first two weeks of class to arrange for reasonable accommodations.

→ **TITLE IX of the Education Amendments of 1972, 20 U.S.C. A§ 1681 ET. SEQ.**

Houston Community College is committed to cultivating an environment free from inappropriate conduct of a sexual or gender-based nature including sex discrimination, sexual assault, sexual harassment, and sexual violence. Sex discrimination includes all forms of sexual and gender-based misconduct and violates an individual's fundamental rights and personal dignity. Title IX prohibits discrimination on the basis of sex-including pregnancy and parental status-in educational programs and activities. If you require an accommodation due to pregnancy, please contact an Abilities Services Counselor. The Director of EEO/Compliance is designated as the Title IX Coordinator and Section 504 Coordinator. All inquiries concerning HCC policies, compliance with applicable laws, statutes, and regulations (such as Title VI, Title IX, and Section 504), and complaints may be directed to:

*David Cross*  
*Director EEO/Compliance*  
*Office of Institutional Equity & Diversity*  
*3100 Main*  
*Houston, TX 77266-7517 or Houston, TX 77266-7517*  
*(713) 718-8271 or [Institutional.Equity@hccs.edu](mailto:Institutional.Equity@hccs.edu)*

→ **CAMPUS CARRY**

At HCC the safety of our students, staff, and faculty is our first priority. As of August 1, 2017, Houston Community College is subject to the Campus Carry Law (SB11 2015). For more information, visit the HCC Campus Carry web page at <http://www.hccs.edu/district/departments/police/campus-carry/>

→ **EQUAL OPPORTUNITY STATEMENT**

It is the policy of the HCCS to provide equal employment, admission and educational opportunities without regard to race, color, creed, national origin, gender, age, veteran's status, sexual orientation, or disability.

→ **FERPA**

The academic, financial and non-directory information on your student account is confidential and protected by the Family Educational Rights & Privacy Act (FERPA). We cannot release certain information to another person without your written authorization. Further information regarding Student Records and FERPA can be found at; <http://www.hccs.edu/district/about-us/procedures/student-rights-policies--procedures/>

**☺ HAVE A GOOD & SUCCESSFUL SEMESTER!! ☺**