



**Division of Earth, Life & Natural Sciences  
Biology Department**

<https://www.hccs.edu/programs/areas-of-study/science-technology-engineering--math/biology/>

**Biology 2102: Anatomy & Physiology II | Lab | 15208**

Spring 2020 | 16 Weeks

In-Person | Stafford Scarcella Bldg. Rm S103 | MW 12:30 p.m.-1:50 p.m.

3 Credit Hours | 48 hours per semester

**Instructor Contact Information**

Instructor: Prof. Afolabi Akinkunmi                      Office Phone: 713-718-7

Office: Stafford Scarcella Bldg      Office Hours: By Appointment.

HCC Email: [afolabi.akinkunmi@hccs.edu](mailto:afolabi.akinkunmi@hccs.edu),                      Office Location: Southwest Campus

Please feel free to contact me concerning any problems that you are experiencing in this course. Your performance in my class is very important to me. I am available to hear the concerns and just to discuss course topics.

**Instructor's Preferred Method of Contact**

I will respond to emails within 24-48 hours Monday through Friday; I will reply to weekend messages during the following week.

**What's Exciting About This Course**

1. **Welcome to Anatomy and Physiology!** We are so glad that you chose to give Houston Community College the benefit of your expertise. This is a two-course series. Anatomy and Physiology I and Anatomy and Physiology II. Biology 2301 and 2302 are 3 credit hour lecture courses while Biology 2101 and 2102 are 1 credit hour lab courses, both intended for students entering health care professions.
2. Anatomy and Physiology I is the first part of a two course sequence. It is a study of the structure and function of the human body including cells, tissues and organs of the following systems: integumentary, skeletal, muscular, nervous and special senses. The lab provides a hands-on learning experience for exploration of human system components and basic physiology. Emphasis is on interrelationships among systems and regulation of physiological functions involved in maintaining homeostasis.

## My Personal Welcome

- (1) You are spending a good deal of time, energy and money on this course – please, make the most of your investment! There is a school-mandated attendance requirement for this course (please see the “Classroom Evaluation” section for a description). If you’re still struggling with certain aspect of the course, please make an effort to see me and I will gladly make time to help you work through the material or assign you a tutor.
- (2) Assignments (e.g. critiques) not turned in on time will be docked 10% of their final value for *each* class day that they are late. There will be NO makeup labs.
- (3) My purpose in this class is to **act as your guide** through this subject material. I also must make sure that your grade in this class indicates **your mastery** of the subject material required by this college. I am **not** here **to spoon-feed you**. It takes approximately 2-3 hours of study time for each hour of class time to master the material. This class will have over 48 **contact hours** (3 hr. credit) compared to 48 contact hours that comprise the normal class (3 hr. credit). **The class and study time necessary to succeed in this class will be close to 150 hours (10 hours per week)!**
- (4) Please do not talk during class. If you feel the need to discuss something with a classmate, please do so outside. I will not be offended if you need to take an important conversation outside briefly so as not to distract your classmates. No cell phones on in class. Please turn them off or on vibrate.

## Prerequisites and/or Co-Requisites

### Co-requisites:

Anatomy and Physiology II (Biology 2302)

### Pre-requisites:

Anatomy and Physiology I Lab and Lecture; (Biology 2101 and 2301)

English 1301 either taken or co-enrolled, **Biology 1306 (General Biology)** is strongly recommended. **Over 60% of the students who have not had 1306 fail to complete this course successfully. This course will require about 150 hours of Study. Take 1306 first!!!!** Please carefully read the repeater policy in the [HCCS Student Handbook](#).

## Canvas Learning Management System

All Biology sections utilize [Canvas \(https://eagleonline.hccs.edu\)](https://eagleonline.hccs.edu) to supplement in-class assignments, exams, and activities.

## Open Lab Locations

[HCCS Open Computer Lab locations](#) may be used to access the Internet and Canvas. **USE FIREFOX OR CHROME AS THE INTERNET BROWSER.**

## HCC Online Information and Policies

For online/hybrid students. As an online /hybrid student, you are responsible for all information/requirements provided by the online college. Here is the link to information about

HCC Online classes <http://www.hccs.edu/online/>. This includes the mandatory online course prior to start of class.

### **Scoring Rubrics, Sample Assignments, etc.**

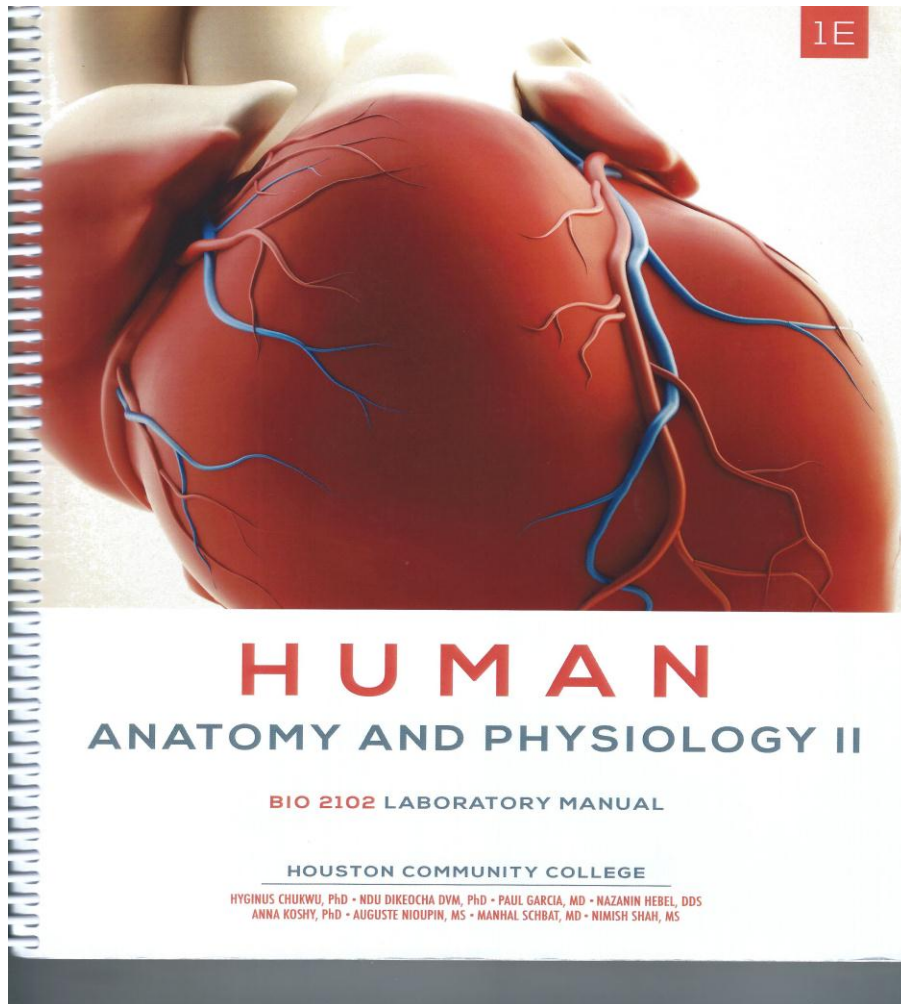
When applicable, look in Canvas for the scoring rubrics for assignments, samples of class assignments, and other information to assist you in the course.

<https://eagleonline.hccs.edu/login/ldap>

## Instructional Materials

### Required Resources

Textbook, Southwest College:



A& P-2 -Biology 2102- Lab Manual-  
by Bluedoor Publishing- Volume-2-by Hebel, Paul & Etal

**Anatomy and Physiology II Laboratory Book can be purchased at the HCC in SW Bookstore.**

There is a FREE text available from OPENSTAX. It, along with the online lab book, would be sufficient but the class will be presented with the Martini text format. The web address is

<http://openstaxcollege.org/textbooks/anatomy-and-physiology>

- The book is included in a package that contains the text as well as an access code and are found at the [HCC Bookstore](#). You may either use a hard copy of the book, or rent the e-book from Pearson. Order your book here: [HCC Bookstore](#)

## Suggested Resources



### HCCS Biology Lab Study Pages

[Click here to access Biology lab study pages online.](#)

OER???

## Other Instructional Resources

### Tutoring

HCC provides free, confidential, and convenient academic support, including writing critiques, to HCC students in an online environment and on campus. Tutoring is provided by HCC personnel in order to ensure that it is contextual and appropriate. Visit the [HCC Tutoring Services](#) website for services provided.

### Libraries

The HCC Library System consists of 9 libraries and 6 Electronic Resource Centers (ERCs) that are inviting places to study and collaborate on projects. Librarians are available both at the libraries and online to show you how to locate and use the resources you need. The libraries maintain a large selection of electronic resources as well as collections of books, magazines, newspapers, and audiovisual materials. The portal to all libraries' resources and services is the HCCS library web page at <http://library.hccs.edu>.

### Supplementary Instruction

Supplemental Instruction is an academic enrichment and support program that uses peer-assisted study sessions to improve student retention and success in historically difficult courses. Peer Support is provided by students who have already succeeded in completion of the specified course, and who earned a grade of A or B. Find details at <http://www.hccs.edu/resources-for/current-students/supplemental-instruction/>.

## Course Overview

### Course Description:

Anatomy and Physiology II Lab is the second part of a two-course sequence. Anatomy and Physiology II (Biology 2302) is a component that correlates with the study of the structure and function of the human body including the following systems: endocrine, cardiovascular, immune, lymphatic, respiratory, digestive, (including nutrition), urinary (including fluid and electrolyte balance), and reproductive (including human development and genetics).

### Core Curriculum Objectives (CCOs)

Biology 2301 satisfies one of the science requirements in the HCCS core curriculum. The HCCS Physiology Discipline Committee has specified that the course address the following core objectives:

- **Critical Thinking:** Students will demonstrate the ability to engage in inquiry and analysis, evaluation and synthesis of information, and creative thinking by completing a written assignment such as a book report, research paper, or essay.
  - **Communication Skills:** Students will demonstrate effective development, interpretation and expression of ideas through written, oral, and visual communication by completing a written assignment such as a book report, research paper, or essay.
  - **Quantitative and Empirical Literacy:** Students will demonstrate the ability to draw conclusions based on the systematic analysis of topics using observation, experiment, and/or numerical skills by completing textbook reading assignments, completing assignments, and answering questions on quizzes and exams that pertain to Course Student Learning Outcomes.
- **Teamwork**– ability to consider different points of view and to work effectively with others to support a shared purpose or goal
  - **Social Responsibility** – intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities
  - **Personal Responsibility** – ability to connect choices, actions and consequences to ethical decision-making

### Program Student Learning Outcomes (PSLOs)

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

- Use anatomical terminology to identify and describe locations of major organs of each system covered.
- Explain interrelationships among molecular, cellular, tissue, and organ functions in each system.
- Describe the interdependency and interactions of the systems.
- Explain contributions of organs and systems to the maintenance of homeostasis.
- Identify causes and effects of homeostatic imbalances.
- Describe modern technology and tools used to study anatomy and physiology.

**In our efforts to prepare students for a changing world, students may be expected to utilize computer technology while enrolled in classes, certificate, and/or degree programs. The specific requirements are listed below:**

### **GETTING READY**

**Prerequisites:** Math 0106 or higher placement by testing, must be placed in college level reading.

**Co-requisites:** None

## Learning Objectives

- Use anatomical terminology to identify and describe locations of major organs of each system covered.
- Explain interrelationships among molecular, cellular, tissue, and organ functions in each system. Describe the interdependency and interactions of the systems.
- Explain contributions of organs and systems to the maintenance of homeostasis. Identify causes and effects of homeostatic imbalances.
- Describe modern technology and tools used to study anatomy and physiology.

## **Student Success**

Academic standards require a minimum of 3 study hours for every contact hour; meaning for a class that meets 3 hours per week, you need to budget and set aside a minimum of 9 hours each week to study and prep for your course success. Expect to spend at least twice as many hours per week outside of class as you do in class studying the course content. Additional time will be required for written assignments. The assignments provided will help you use your study hours wisely. Successful completion of this course requires a combination of the following:

- Reading the textbook
- Attending class in person and/or online
- Timely completion of assignments
- Participating in class activities
- Successful exam performance, including the mandatory final

There is no short cut for success in this course; it requires reading and studying the material using the course objectives as a guide.

### **Instructor and Student 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 learner-centered instructional techniques
- Provide a description of any special projects or assignments
- Inform students of policies such as attendance, withdrawal, tardiness, and making up assignments
- Provide the course outline and class calendar that will include a description of any special projects or assignments
- Arrange to meet with individual students before and after class as required

As a student, it is your responsibility to:

- Attend class in person and/or online
- Participate actively by reviewing course material, interacting with classmates, and responding promptly in your communication with me
- 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
- Be aware of and comply with academic honesty policies in the [HCCS Student Handbook](#)



## Assignments, Exams, and Activities

### Assignments

Students are required to read assigned chapters and to complete chapter and atlas Quizzes on schedule. Additional announced and unannounced quizzes during lecture may be conducted throughout the semester. Additional assignments may be assigned as specified by the instructor.

### Exams

Students will be assessed via lecture examinations, chapter quizzes, comprehensive final lecture. Additionally, there is a required General Biology proficiency examination at the beginning of the semester and a Final Exit examination at the end of the semester.

|                                 |                                                                            |
|---------------------------------|----------------------------------------------------------------------------|
| Program/Discipline Requirements | Proficiency Exam<br>2301 Exit Exam                                         |
| HCC Grading Scale:              | A = 90-100%<br>B = 80-89%<br>C = 70-79%<br>D = 60-69%<br>F = less than 60% |

### In-Class Activities

**We will be having in class activities from time to time and it is important that you come to class with the material studied so we can have meaningful discussions.**

### Final Exam

All students will be required to take a comprehensive departmental final exam consisting of 50 multiple-choice questions. Students must provide their own Scantron forms (FORM NUMBER 882-E-LOVAS). All the information students need to prepare for the exam is in the course required materials.

### Grading Formula

The biology department strongly recommends that instructors adopt a points-based grading system with a maximum 1,000 total points possible.

|                             |                 |                     |
|-----------------------------|-----------------|---------------------|
| 12-Laboratory Reports       | 25 points each  | = 300 points        |
| 4-Quizzes                   | 75 points each  | = 300 points        |
| 4-Examinations: 4-unit exam | 100 points each | = 400 points        |
| Departmental Final Exam     | None            |                     |
| <b>TOTAL POINTS</b>         |                 | <b>=1000 points</b> |

|   | <b>Total Points</b> |
|---|---------------------|
| A | 900+                |
| B | 800-899             |
| C | 700-799             |
| D | 600-699             |
| F | <600                |

### **Incomplete Policy:**

In this course, the purposes of the "I" (incomplete) grade is for students who are caught up and passing at the student withdrawal deadline, and then have a medical or other problem that prevents them from completing the course. If you are not passing at the student withdrawal deadline, you should drop yourself from the course, or you will likely earn an "F." An incomplete "I" grade will be given only if all of the following conditions are met:

- ✓ You have earned at least 85% of the available points by the date that the "I" grade is requested.
- ✓ You can provide documentation showing why you should earn an incomplete, such as a doctor's note, etc.
- ✓ You must be passing with a grade of "C" or better.
- ✓ You must request the incomplete in writing BEFORE the official drop date.
- ✓ In all cases, the instructor reserves the right to decline a student's request to receive a grade of Incomplete.

**HCC Grading Scale can be found on this site under Academic Information:**  
<http://www.hccs.edu/resources-for/current-students/student-handbook/>

## Course Calendar

Biology 2102 CRN15208 Anatomy & Physiology II Lab. MW 12:30-1:50PM Stafford Scarcella Bldg. Rm S103

|                                                                             |                                                                    |                                         |                                                                                                                                     |
|-----------------------------------------------------------------------------|--------------------------------------------------------------------|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| <b>January Monday 20</b><br>Martin Luther King Holiday                      | <b>Wednesday 22</b><br>Orientation, Lab Safety,<br>and Microscopes | <b>Monday 27</b><br>Microscopes         | <b>Wednesday 29</b><br>Identify Endocrine<br>Glands in Torso & Brain<br>Models, Histology of<br>Pancreas, Thyroid,<br>Adrenal gland |
| <b>February 3</b><br>The Blood (slides),<br>Hematocrit, ABO blood<br>typing | 5<br>The Heart (models,<br>sheep heart, Blood<br>pressure, ECG     | 10<br>REVIEW for Exam                   | 12<br><b>EXAM I</b>                                                                                                                 |
| 17<br>President's Day Holiday                                               | 19<br>Blood Vessels<br>(histology, major routes)                   | 24<br>The Lymphatic System              | 26<br>The Lymphatic System                                                                                                          |
| <b>March 2</b><br>The Respiratory System                                    | 4<br>The Respiratory System                                        | 9<br>Review                             | 11<br><b>EXAM 2</b>                                                                                                                 |
| 16<br><b>SPRING BREAK</b>                                                   | 18<br><b>SPRING BREAK</b>                                          | 23<br>The Digestive System              | 25<br>The Digestive System                                                                                                          |
| 30<br>The Urinary System                                                    | <b>April 1</b><br>The Urinary System                               | 6<br>Cat Dissection                     | 8<br><b>Exam 3</b>                                                                                                                  |
| 13                                                                          | 15<br>The Male Reproductive<br>System                              | 20<br>The Female<br>Reproductive System | 22<br>The Female<br>Reproductive System                                                                                             |
| 27<br>The Female<br>Reproductive System                                     | 29<br>The Female<br>Reproductive System                            | <b>May 4</b><br>Review                  | 6<br><b>EXAM 4</b>                                                                                                                  |
| 11<br>Final Exam week                                                       | 13                                                                 |                                         |                                                                                                                                     |

\* These chapters are a review of General Biology Information. Students attempting Biology 2301 should already be well versed in this information.

### Instruction Methods:

Eagle online may be utilized for General Biology proficiency quiz at the beginning of the semester and for exit exam at the end of the semester. Pearson's course software (Mastering A&P) will be utilized for chapter quizzes and homework assignments. If you have a used book or a rental, you will be required to purchase the "Mastering" package for this course.

### **Syllabus Modifications**

The instructor reserves the right to modify the syllabus at any time during the semester and will promptly notify students in writing, typically by e-mail, of any such changes.

## Instructor's Practices and Procedures

### Missed Assignments

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

### Academic Integrity

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.

Here's the link to the HCC information about academic integrity (Scholastic Dishonesty and Violation of Academic Scholastic Dishonesty and Grievance):

<http://www.hccs.edu/about-hcc/procedures/student-rights-policies--procedures/student-procedures/>

### Attendance Procedures

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.

Instructors check class attendance daily. A student may but **not necessarily (it is the students responsibility to drop the course, not the instructor's)** 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.

### Student Conduct

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.

### Instructor's Course-Specific Information (As Needed)

Students should be on time for class and be prepared (**having read and studied the assignments**) with required materials including textbook . Full class attendance is required including lecture portions. Full attention during lecture is required.

## **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.

## **Biology Program Information**

The Biology area of study here at HCC covers the smallest and simplest organisms (microbiology) to the largest and most complex organisms (human anatomy and physiology, zoology, botany).

AWARD TYPES: Associate in Science

AREA OF STUDY: Science, Technology, Engineering & Math

Please visit link: <https://www.hccs.edu/programs/areas-of-study/science-technology-engineering--math/biology/>

## **HCC Policies**

Here's the link to the HCC Student Handbook <http://www.hccs.edu/resources-for/current-students/student-handbook/> In it you will find information about the following:

- Academic Information
- Academic Support
- Attendance, Repeating Courses, and Withdrawal
- Career Planning and Job Search
- Childcare
- disAbility Support Services
- Electronic Devices
- Equal Educational Opportunity
- Financial Aid TV (FATV)
- General Student Complaints
- Grade of FX
- Incomplete Grades
- International Student Services
- Health Awareness
- Libraries/Bookstore
- Police Services & Campus Safety
- Student Life at HCC
- Student Rights and Responsibilities
- Student Services
- Testing
- Transfer Planning
- Veteran Services

### **EGLS<sup>3</sup>**

The EGLS<sup>3</sup> ([Evaluation for Greater Learning Student Survey System](#)) will be available for most courses near the end of the term until finals start. This brief survey will give invaluable information to your faculty about their teaching. Results are anonymous and will be available to faculty and division chairs after the end of the term. EGLS<sup>3</sup> surveys are only available for the Fall and Spring semesters. -EGLS3 surveys are not offered during the Summer semester due to logistical constraints.

<http://www.hccs.edu/resources-for/current-students/egls3-evaluate-your-professors/>

### **Campus Carry Link**

Here's the link to the HCC information about Campus Carry:

<http://www.hccs.edu/departments/police/campus-carry/>

### **HCC Email Policy**

When communicating via email, HCC requires students to communicate only through the HCC email system to protect your privacy. If you have not activated your HCC student email account, you can go [to HCC Eagle ID](#) and activate it now. You may also use Canvas Inbox to communicate.

### **Housing and Food Assistance for Students**

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

college for support. Furthermore, please notify the professor if you are comfortable in doing so.

This will enable HCC to provide any resources that HCC may possess.

## **Office of Institutional Equity**

Use the link below to access the HCC Office of Institutional Equity, Inclusion, and Engagement (<http://www.hccs.edu/departments/institutional-equity/>)

### **disAbility Services**

HCC strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including long and short term conditions, mental health, chronic or temporary medical conditions), please meet with a campus Abilities Counselor as soon as possible in order to establish reasonable accommodations. Reasonable accommodations are established through an interactive process between you, your instructor(s) and Ability Services. It is the policy and practice of HCC to create inclusive and accessible learning environments consistent with federal and state law. For more information, please go to <http://www.hccs.edu/support-services/disability-services/>

### **Title IX**

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  
(713) 718-8271  
Houston, TX 77266-7517 or [Institutional.Equity@hccs.edu](mailto:Institutional.Equity@hccs.edu)  
<http://www.hccs.edu/departments/institutional-equity/title-ix-know-your-rights/>

### **Office of the Dean of Students**

Contact the office of the Dean of Students to seek assistance in determining the correct complaint procedure to follow or to identify the appropriate academic dean or supervisor for informal resolution of complaints.

<https://www.hccs.edu/about-hcc/procedures/student-rights-policies--procedures/student-complaints/speak-with-the-dean-of-students/>

### **Department Chair Contact Information**

Dr. DaeJan Grigsby

Email: [daejan.grigsby@hccs.edu](mailto:daejan.grigsby@hccs.edu)

Phone: 713-718-7775