### BIOL 2402 - ANATOMY & PHYSIOLOGY II - WEB ENHANCED

CRN ◆ 39362 Fall 2013
Pinemont Campus – Room 162/133
5:30pm - 8:30pm ◆ Mon/Wed

3 HOUR LECTURE & 3 HOUR LAB ♦ 96 HOURS PER SEMESTER ♦ 16 WEEKS

Instructor: Prof. Regina Wiggins Speights, MS, BS, RN

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Office Location: Pinemont, B114

Office hours: Monday & Wednesdays 7:00 am - 8:00am

# Course Description:

To study of the structure and function of the following human systems

- Endocrine Systems
- o Cardiovascular System
- Respiratory System
- Digestive System
- Lymphatic System and
- Reproductive Systems

<u>Course Goal or Intent</u>: This course is intended to familiarize the Health Science Major with anatomy, morphology, and physiology of the above human body systems.

Course Prerequisite: BIOL 2401

Core curriculum course. It is a continuation of BIOL 2401 including:

### STUDENT LEARNING OUTCOMES:

Students will be able to:

- Understand and apply method and appropriate technology to the study of natural sciences.
  - Recognize scientific and quantitative methods and differences between these approaches and other methods of inquiry and to communicate findings, analyses, and interpretations both orally and in writing.
  - o Identify and recognize the locations of different organ systems of the body.
  - Demonstrate knowledge of the major functions of the body organs.
  - Demonstrate knowledge of basic clinical laboratory test.
  - o Identify and recognize the most common signs of diseases/illnesses.

### Learning Objectives:

The students;

- 1. Review the endocrine and exocrine glands of a human body
- 2. Examine the structure and function of the heart and connecting vessels.
- 3. Review the chemical components of the blood and lymph
- 4. Identify the cellular components of the blood and their functions
- 5. Examine the digestive system structures and diseases.
- 6. Familiarize students with the functions of male and female reproductive systems

### 16 WEEK CALENDER

# **TENTATIVE LECTURE OUTLINE:**

<u>WEEK:</u> <u>LECTURES/LABORATORIES/EXAMINATIONS</u>

08-25-13

Chapter 18 Lecture: Endocrine System

**Laboratory**: ENDOCRINE GLANDS

09-01-13

Chapter 19 Lecture: Cardiovascular System: The Blood

**Laboratory**: COMPOSITION OF BLOOD (Prepared blood smear)

BLOOD TYPES (GROUPS): ABO AND Rh SYSTEMS

09-08-13

**Chapter 20** Lecture: Cardiovascular System: The Heart

Laboratory: THE HEART AND BLOOD VESSELS

(slides, heart, brain and liver models, cat specimen sheep and hearts)

**09-15-13 Lecture:** Cardiovascular System: Blood Vessels and Hemodynamics

Chapter 21

Laboratory: HEMODYNAMICS: PULSE RATE, HEART RATE, BLOOD

**PRESSURE** 

**09-22-13** Lecture EXAM #1 Chapters 18, 19, 20, 21 Lab Practical #1 open

09-29-13

**Lecture**: Chapter 22 The Lymphatic System and Immunity

Laboratory: THE LYMPHATIC SYSTEM

10-06-13

**Chapter23** Lecture: The Respiratory System.

Laboratory: THE RESPIRATORY SYSTEM

10-13-13 Lecture EXAM #2 Chapters 22, 23 Lab Practical #2 open

**Chapter 24** Lecture: The Digestive System

**Laboratory**: THE DIGESTIVE SYSTEM (models)

10-20-13

Chapter 25 Lecture: Metabolism and Nutrition

Laboratory: Cat Dissection

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10-27-13

Chapter 25 Lecture: Metabolism and Nutrition (continued)

11-03-13

Chapter 26 Lecture: The Urinary System

Laboratory: THE URINARY SYSTEM

Slides, preserved sheep or pig kidney, torso and kidney models

Chapter 27 Lecture: Fluid, Electrolytes, and Acid-Base Homeostasis

Laboratory: Fluid, Electrolytes

**11-10-13 LECTURE EXAM #3** *Chapters 24, 25, 26, 27 Lab Practical #3 open* 

11-17-13

**Chapter 28** Lecture: The Reproductive Systems

Laboratory: MALE & FEMALE REPRODUCTION SYSTEM

11-24-13

**Chapter 28** Lecture: The Reproductive Systems

**Laboratory**: MALE & FEMALE REPRODUCTION SYSTEM (continued)

12-01-13

**Chapter 29** Lecture: Development, Growth, Aging, and Genetics

**Laboratory**: EMBRYOLOGY

LECTURE EXAM #4 & LAB EXAM #2 4/25/12 & 4/26/12

**12-04-13 LECTURE EXAM #4** Chapters 28, 29

FINAL EXAM Monday 12-09-13

### Methods and Procedures for Teaching this Course:

- 1. Text assignments, lectures, and lab topics will follow the schedule as much as possible. (*This instructor reserves the right to change or alter the schedule, if necessary*)
- Scientific videotapes, slides, computer software programs, etc. will be used during lecture and lab sessions. Go to <a href="http://hccs.edu/biologylabs">http://hccs.edu/biologylabs</a> for laboratory enhancement.
- Major exams will be given according to the printed schedule. Concepts covered on exams may not have been fully addressed in lab or lecture. It is the student's responsibility to have text and lab materials fully studied.
- 4. Outside reading to enhance one's own understanding is strongly encouraged. The instructor on a regular basis may assign specific articles.
- 5. This instructor has an "open door" policy towards students. Please feel free to come in or call if you have any questions concerning course items or college life in general.

### ASSIGNMENTS:

All assignments are to be completed and submitted to the instructor on the scheduled due date. No late assignments will be accepted.

# **LEARNING ACTIVITIES:**

- 1. Students are responsible for reading text assignments *BEFORE* class time so that they may engage in discussion of the material.
- 2. Lectures may expand the scope of the text.
- Students should make full use of study groups.

- 4. Students are required to work together in small groups on specific assignments.
- 5. Laboratory sessions coincide with lecture and reading material and include conducting experiments as well as dissections and observations of preserved specimens.
- 6. Each student is required to write one formal typed report and make one class presentation.
- 7. Students are encouraged to bring specimens pertaining to the material being covered; *however, nothing should be brought that could pose a health or safety risk.*

### **REQUIRED MATERIALS**

<u>Textbook</u>: Tortora, G. J. and Derrickson, B.: **PRINCIPLES OF ANATOMY AND PHYSIOLOGY**, Twelfth Edition, John Wiley and Sons,

**Laboratory Manual:** ANATOMY AND PHYSIOLOGY II; LABORATORY MANUAL, Keating, R.J. & Wiersema, V.L., eds.:3th Edition, University Press, Houston, Texas, 1997

<u>Other Materials</u>: a 3-ring Binder, colored pencils, note cards, yellow highlighters, pencils for exams and quizzes.

#### Methods of Assessment/Evaluation:

Grades will be based on: four-lecture exams, two-lab quizzes, daily evaluation, presentation/reports and final exam (mandatory).

- a. four-lecture exams, 4-100 points exams that may be a combination of short answer, fill in the blank, multiple choice and true/false. No makeup exams will be given unless the students can provide signed documented evidence. You are advised to contact the course instructor before or the day of the missed class. Makeup exams will be essay in format.
- **b. three-lab practicals.** Only materials covered in the lab will be on the quiz and will total **300** points. They will consist of terminology, dissections, lab experiment results and procedure. No makeup quizzes will be given *unless* the students can provide signed documented evidence. You are advised to contact the course instructor **before or the day of the missed class.**
- **c. quizzes** will comprise of the students' participation in the class, late-coming, absenteeism and moreover his interest during lectures and worth **200** points. Daily evaluation average is obtained by averaging the grades on all daily reports. Attendance will be taken daily.
- d. final exam is mandatory and worth 100 points. The final exam will consist of multiple choice, matching and true/false. It will cover all lecture material. Departmental final will count as a % of final exam grade.
  NOTE: ALL LECTURE EXAMS ARE TAKEN ON COMPUTER IN PERSON WITH INSTRUCTOR UNLESS NOTED. OPENING AN EXAM WITHOUT THE INSTRUCTOR PRESENT WILL RESULT IN A GRADE OF "0" NO EXCEPTIONS!!!!!!

#### ADA STATEMENT:



The Houston Community College System Colleges are dedicated to providing the least restrictive learning environment for all students. The college district promotes 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.

"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, "Faculty is authorized to provide only the accommodations requested by the Disability Support Services Office. If you have any questions, please contact the ADA Counselor at each College. For the *Northeast College*, please contact *Kim Ingram* at *713-718-8420*.

### **HCC Policy Statement: Academic Honesty**

A student who is academically dishonest is, by definition, not showing that the coursework 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 college'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.

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

**Collusion** mean 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)

# **HCC Policy Statements**

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 six 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, <u>you</u> <u>are responsible for all material missed</u>. 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.

MAKE-UP EXAMS. Students should contact the instructor prior to missing a scheduled examination by phone, inperson, by e- mail, or by voice mail. DO NOT ASSUME BECAUSE YOU HAVE CONTACTED ME THAT YOU ARE GRANTED A MAKE-UP EXAM. I WILL USE MY DISCRETION ONLY WITH DOCUMENTED ORIGINAL PAPERS. An opportunity to take an alternative examination will be offered to those permission only according to my schedule.

### **HCC Course Withdrawal Policy**

If you feel that you cannot complete this course, you will need to withdraw from the course prior to the final date of withdrawal. Before, you withdraw from your course; please take the time to meet with the instructor to discuss why you feel it is necessary to do so. The instructor may be able to provide you with suggestions that would enable you to complete the course. Your success is very important. 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.

To help students avoid having to drop/withdraw from any class, HCC has instituted an Early Alert process by which your professor may "alert" you and HCC counselors that you might fail a class because of excessive absences and/or poor academic performance. It is your responsibility to visit with your professor or a counselor to learn about what, if any, HCC interventions might be available to assist you – online tutoring, child care, financial aid, job placement, etc. – to stay in class and improve your academic performance.

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If you plan on withdrawing from your class, you MUST contact a HCC counselor or your professor prior to withdrawing (dropping) the class for approval and this must be done PRIOR to the withdrawal deadline to receive a "W" on your transcript. Friday, November 1, 2013 is the last day for Administrative/Student Withdrawals – 4:30pm (CST). \*\*Final withdrawal deadlines vary each semester and/or depending on class length, please visit the online registration calendars, HCC schedule of classes and catalog, any HCC Registration Office, or any HCC counselor to determine class withdrawal deadlines. Remember to allow a 48-hour response time when communicating via email and/or telephone with a professor and/or counselor. Do not submit a request to discuss withdrawal options less than a day before the deadline. If you do not withdraw before the deadline, you will receive the grade that you are making in the class as your final grade.

### Repeat Course Fee

The State of Texas encourages students to complete college without having to repeat failed classes. To increase student success, students who repeat the same course more than twice, are required to pay extra tuition. The purpose of this extra tuition fee is to encourage students to pass their courses and to graduate. Effective fall 2006, HCC will charge a higher tuition rate to students registering the third or subsequent time for a course. If you are considering course withdrawal because you are not earning passing grades, confer with your instructor/counselor as early as possible about your study habits, reading and writing homework, test taking skills, attendance, course participation, and opportunities for tutoring or other assistance that might be available.

#### 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.

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

- 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
- Complete the field study with a 70% passing score

### 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, 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 the EGLS<sub>3</sub> as part of the Houston Community College Student System online near the end of the term.

### LETTER GRADE ASSIGNMENT:

Final letter grades will be assigned after computing individual final averages in percent as follows:

final average in points 900 - 1000 800 - 899 700 - 799 600 - 699 < 599%	letter grade A B C D
Grading: 4-lecture exams 3-lab exams Quizzes Final Exam	400 (40%) 300 (30%) 200 (20%) <u>100</u> (10%)

### **RECORD OF TEST SCORES**

total points

<b>Exam 1</b> /100	Lab Practicals:	1/100
<b>Exam 2</b> /100	Lab Practicals:	2/100
<b>Exam 3</b> /100	Lab Practicals:	<u>3.</u> /100
<b>Exam 4</b> /100	Quizzes	/200

1000 (100%)

FINAL EXAM:	/100 points	Total Points out of a possible 1000
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# **Important Days**

Friday, August 23 Last Day for 100% Refund Monday, September 2 Friday, November 1 Offices Closed-Labor Day Last Day for Administrative/Student Withdrawals-4:30pm Wednesday, Nov27-Dec1 Campus closed for Thanksgiving Holiday Sunday, December 8 **Instruction Ends** Mon-Sun, Dec 9-15 Final Examinations for all classes Sunday, Dec 15 **Semester Ends** Monday, Dec 16 **Grades Due by12:00Noon** Grades available to students Friday, Dec 20

### **HCC-BookStore Phone Numbers:**

Alief	713-718-6656	Spring Branch	713-468-5300
Central	713-528-0872	Westloop	713-218-0391
Eastside	713-640-1441	Katy	713-718-5982
Northline	713-692-1472	Stafford	281-499-6413