BIOLOGY 2402
Human Anatomy and Physiology II- CRN# 81109
SYLLABUS
Summer - 2012

Class time: Monday – Thursday 8:00 AM – 12:45 PM

Instructor: Alicia Linda Cummings MPH, RD, LD
alicia.cummings@hccs.edu -- You can also email to me through Eagle.
Cell: 713-703-7047
Available by appointment

Course Description: Examination of the following anatomical systems: endocrine, circulatory, lymphatic, respiratory, digestive, urinary, and reproductive.

Text: Required Fundamentals of Anatomy and Physiology 9th edition. Martini, Nath, and Bartholomew


Study Guides: Optional Human Anatomy & Physiology II Study Guide by Dr. Jyoti R. Wagle

Eagle Learning Management System: Your Eagle Online ID is the same as your HCC User ID which is used for Online Registration. [For example: W0034567]. If you do not know your User ID you obtain it by visiting the HCC home page- www.hccs.edu; click on “Login Help” under the “Student System Sign In” field then click on “Retrieve User ID” and follow the instructions. Your default Eagle Online password at the beginning of the term is: "distance". This password is independent of your Online Registration password. You will be required to change your password when you first log in. Trouble logging in? go to http://online.hccs.edu for more information.

OTHER RESOURCES
1. Textbooks and videotapes are available in the reserve section of the library.
2. Lecture support:
   - Free tutoring will be available throughout the semester. Schedule will be posted in biology classrooms and bulletin boards outside the labs as soon as they become available.
   - PowerPoint lecture notes and slides, exam reviews though Eagle
   - Mastering textbook support and materials
3. Lab support:
   - Sciences Computer Lab (LHSB 415) is available to access biology web pages, study pages (http://www.hccs.edu/biologylabs) and other computer software and animations. Schedule will be posted in biology classrooms and on bulletin boards outside the labs.
   - Open Lab sessions will also be available. The schedule for open labs will be posted in biology classrooms and on bulletin boards outside the lab.
Prerequisites:  
Biology 2401 – Anatomy and Physiology I

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

POLICIES:

Americans With Disabilities Act (ADA)
HCCS Disability Support Service states: Any student with a documented disability (e.g. physical, learning, psychiatric, vision, hearing, etc) who needs to arrange reasonable accommodations must contact the appropriate Disability Support Service (DSS) Counselor at the beginning of each semester. Faculty are authorized to provide only the accommodations requested by the Disability Support Services Office. Students who are requesting special testing accommodations must first contact John Reno at john.reno@hccs.edu or call him at 713/718-6165.

Academic Integrity
Any violation of scholastic integrity will result in failure of the course and disciplinary actions deemed necessary and appropriate by the school administration. Students are expected to conduct themselves with honesty and respect. Dishonest practices can result in diverse penalties leading to potential academic probation or dismissal. Cheating will not be tolerated!

Classroom Etiquette/Guideline
1. Arrive on time.
2. All cell phones and/or pagers must be set on vibrate or silent mode.
3. As a courtesy to other classmates, please refrain from talking during lectures.
4. Textbook and lab manual are required. Study guide is highly recommended.
5. Class attendance is mandated by the state. Attendance will be given only if you attend full class period. Coming late to the class or leaving early is considered as disruption. More than four unexcused absences may result in an administrative withdrawal. You are responsible for everything covered or announced during your absence.
Attendance/Withdrawal/Grade

HCC Course Withdrawal Policy:

Academic performance is the responsibility of each student. Failure to meet the requirements for the course will result in a failing grade. You are expected to attend class and labs. Research has shown class attendance is the predominant factor for academic success. If you miss a class it is your responsibility to obtain any materials covered during your absence. If you are having difficulty, please see the instructor for additional assistance to avoid the possibility of having to withdraw from the course. 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 students to no more than SIX total course withdrawals throughout their educational career in obtaining a certificate and/or degree.
- In the event you find it necessary to withdraw from the course, submission of your request must be completed no later than 4:30 PM on Monday, June 25th.
- Students who stop attending class and do not withdraw will receive a final grade FX. This notifies the Federal and State Loan agencies the student has discontinued attendance. This could potentially affect student loan approvals for future semesters.
- An incomplete (“I”) will only be given for extraordinary circumstances (death in the family, severe illness, military duty, etc). Incompletes cannot be assigned unless the student has completed at least 75% of the course materials (exams, labs, etc). Attendance and punctuality is strongly recommended.

International Students

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. Since January 1, 2003, international students are restricted in the number of distance education courses that they may take during each semester. ONLY ONE online/distance education class may be counted towards the enrollment requirement for International Students per semester. Please contact the International Student Office at 713-718-8520 if you have any questions about your visa status and other transfer issues.

Recommendations

The following are strongly recommended for each student:

- Read or peruse the week’s chapter before each class. Following the lecture read the chapter carefully. Bring any questions to the attention of the instructor if you need additional clarification.
- Complete pre-lab reports prior to lab exercises. Read through each lab fully to understand what will be covered in the lab exercise.
- DON’T GET BEHIND! Work hard from the beginning of the semester rather than playing a “catch-up” game. There are copious amounts of information to absorb and it is better done in small increments rather than large volumes.
- Take advantage of the resources made available to you (study pages, textbook support, tutoring).
- Contact your professor if you have any questions regarding any element of the course you do not understand. Do not wait to have your questions answered until right before an exam.
- If you need an A or a B for the course start making those grades from the first submission of lab reports, quizzes, exams, etc. Desire and performance are not mutually exclusive - meaning the one will not necessarily produce the other.
Grading/Testing/Assignments

<table>
<thead>
<tr>
<th>Grading Category</th>
<th>Points</th>
<th>Grade Range</th>
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<tbody>
<tr>
<td>Lecture Exams (3) / Lab Practicum Exams (2)</td>
<td>625</td>
<td>A = 900-810 points</td>
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<tr>
<td>Lowest scored exam will be dropped</td>
<td>(125)</td>
<td>B = 809-720 points</td>
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<tr>
<td>Mandatory Final Exam/partial comprehensive</td>
<td>150</td>
<td>C = 719-630 points</td>
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<tr>
<td>4 Short Projects (25 points each)</td>
<td>100</td>
<td>D = 629-540 points</td>
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<tr>
<td>Lab reports</td>
<td>100</td>
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<tr>
<td>Participation</td>
<td>50</td>
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<tr>
<td>Total</td>
<td>900</td>
<td>Total</td>
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1. There will be 5 lecture/lab exams and a final exam. The final exam grade will consist predominantly of the last three chapters and comprehensive material from SOME of the previous chapters. The content emphasis of prior chapters will be given before the exam.

2. The lowest score on the first 5 lecture/lab exams will be dropped. The final exam is MANDATORY and MAY NOT be dropped. If you miss an exam it will be dropped as your lowest score. Makeup for a second missed exam will be at the discretion of the instructor.
   - Lecture exams will consist of multiple-choice, true-false, matching, and short answer questions. **Students must provide scantrons for each exam.**
   - Lab exams will be practicum. Stations will be arranged throughout the lab. Students will move from station to station answering indicated questions on models, microscopes, dissections, etc; the lab exams are NOT multiple choice. There is absolutely no makeup for lab exams!!!!

3. **Exams will begin promptly.** If you arrive late you will not have additional time to complete the exam which could potentially affect your performance. If you are unable to attend class on scheduled exam days NOTIFY THE INSTRUCTOR IMMEDIATELY.

4. **CELL PHONES, IPHONES, ETC MAY NOT BE USED DURING EXAMS.** Individuals who answer phones during the exam will be asked to forfeit their exam at that time.

5. There are 4 short projects worth 25 points each. Due dates are posted on schedule. Projects may be submitted earlier than the due date.

6. **Lab reports and attendance**
   - In the lab, you are encouraged to work in small groups. However, you are responsible for your own lab reports. Answer each question in the both the pre- lab and regular lab reports to the best of your ability once the exercise is completed.
     - Lab reports will be removed from the lab manual and submitted at the end of class. In the event the lab exercises do not leave sufficient time to complete reports they will be due the following lab class.
   - Lab attendance is highly recommended. You will not do well in this course by skipping lab sessions.
   - You must read the laboratory safety rules before doing any of the lab exercises. The laboratory safety release form must be signed during the first lab session you attend. If you do not sign the release form, none of your test grades will be returned to you.

7. Participation points are **NOT automatically assigned.** Poor attendance, poor lab performance and tardiness will affect participation point distribution.

8. Grades are computed based on point accumulation. Examine the chart above to determine the number of points necessary to earn a specific grade. Keep tract of total points throughout the semester. If you need clarification you may contact the instructor at any time.
<table>
<thead>
<tr>
<th>WEEK of</th>
<th>CHAPTERS</th>
<th>Topic and Exam Schedule</th>
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<tbody>
<tr>
<td>6/4</td>
<td>Chapter 18; Chapter 19; Chapter 20</td>
<td>Orientation</td>
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<tr>
<td></td>
<td></td>
<td>* The endocrine system; Lab exercise 1</td>
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<td></td>
<td></td>
<td>* Blood; Lab Exercise 2 – Blood typing/hematocrit</td>
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<td></td>
<td></td>
<td>* The Heart; Lab Exercise 3; Lab Exercise 4 (EKG)</td>
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<td>6/11</td>
<td>Chapter 21; Chapter 22; Chapter 23</td>
<td>Lecture Exam 1 (Chapters 18, 19, 20)</td>
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<td>* Blood vessels and circulation; Lab Exercises 5 (Blood Vessels)</td>
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<td></td>
<td>* The lymphatic system; Lab Exercise 6 (Lymphatic system)</td>
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<td></td>
<td>* The respiratory system; Lab Exercises 7 (Respiratory System)</td>
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<td>Projects 1 – (Human Anatomy &amp; Physiology in the News) Due Thursday, June 14th</td>
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<tr>
<td>6/18</td>
<td>Chapter 24; Chapter 25; Chapter 27</td>
<td>Monday (6/18) Lecture Exam 2 (chapters 21, 22, 23)</td>
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<td></td>
<td>* The Digestive System; Lab Exercises 9 (Digestion)</td>
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<td></td>
<td></td>
<td>* Metabolism and Energetics</td>
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<td>Wednesday (6/20) LAB exam 1 (endocrine-respiratory)</td>
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<td></td>
<td></td>
<td>* Fluid, electrolyte, acid-base balance</td>
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<td>Projects 2 (Human Anatomy &amp; Physiology on TV) Due Thursday, June 21st</td>
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<tr>
<td>6/25</td>
<td>Chapter 26; Chapter 28; Chapter 29</td>
<td>Monday = Lecture exam 3 (Chapters 24, 25, 27)</td>
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<td></td>
<td>* The Urinary system; Lab Exercise 10 (urinary system); Lab Exercise 11 (urinalysis)</td>
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<td></td>
<td>* Reproductive System; Lab Exercise 12 / Lab Exercise 13/</td>
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<td></td>
<td></td>
<td>* Development and Inheritance</td>
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<td></td>
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<td>* Cat Dissection/Digestion</td>
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<td>Projects 3 (Personal Interview) Due Thursday, June 28th</td>
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<td>Monday, June 25th - Last Day for Administrative Withdrawal</td>
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<td>7/2</td>
<td>Review for lab exam; finish up labs, outstanding lecture materials</td>
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<tr>
<td>7/3</td>
<td>* Lab exam 2 (7/3) (digestion-reproduction)</td>
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<td>Projects 4 (Community organization) Due Thursday, July 3rd</td>
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<tr>
<td>7/5</td>
<td>* MANDATORY FINAL EXAM - Thursday, July 5th</td>
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<td></td>
<td>Comprehensive Departmental Final</td>
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<tr>
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<td></td>
<td>Professor Cummings – Chapters 26, 28, 29</td>
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</tbody>
</table>

This is a tentative schedule and is subject to change. Any alteration in the schedule will be announced and posted in a timely manner.
AP II Projects – 25 points Each
Projects must be typed, double spaced, in reasonable font size and style. Points will be deducted if the minimum page requirement is not meet. Large font and spaces between paragraphs will also result in lost points. You may have more than 2-3 pages for any project.

1. Human Anatomy & Physiology in the News Due June 14th

Find an article in a newspaper, magazine, or journal (in print or online) that discusses Human Anatomy and/or Physiology. Read the article and write a FULL 2-3 page summary of the article. YOU MUST SUBMIT A COUPLE OF THE ARTICLE WITH YOUR PAPER.

Your summary should include the following:

- Name and author of the article
- Where did you find the article?
- Summary of article. (What is the article about?)
- Answer the following questions:
  - Why is the subject of the article important?
  - Why did you choose this article?
- Explain in detail the areas of Human Anatomy and Physiology discussed in this article?
  - What are two things you learned from reading this article?
  - Would you recommend the article to someone else? Why or Why not?

2. Human Anatomy & Physiology on TV Due June 21st

Watch an approved TV show or movie that deals with Human Anatomy & Physiology. Write a FULL 2-3 page summary of the show.

Examples: Discovery Channel Human Body Series, Dr. G Medical Examiner, ER, House, CSI, Grey’s Anatomy, PBS body series, etc

Your summary should include the following:

- Name of show
- Summary of the program’s content. (What was the show about?)
- Answer the following questions:
  - Why did you choose to watch this particular show?
  - Explain in detail the areas of Human Anatomy and Physiology discussed in this show?
  - Describe at least two characters that have careers dealing with the fields of Human Anatomy or Physiology.
  - How did this show affect the way you view anatomy and physiology?
  - What are two things you learned from watching this TV show?
3. Personal Interview  **Due June 28th**

Interview a member of the community who has a career that focuses on Human Anatomy & Physiology. Write a **FULL two_three page** summary detailing the interview. **Be sure to get answers to each of the following questions when interviewing your career candidate.**

**Examples of careers that focus on Human Anatomy & Physiology?**

Physicians (all specialties), Physician Assistants (PAs), Nurses (all specialties), Nurse Practitioners, Physical Therapists, Occupational Therapists, Speech Therapists, Audiologists, Pharmacists, Psychiatrists, Dentists, Dental Hygienists, Orthodontists, Paramedics, Emergency Medical Technicians, Coroners, PE teachers, Dieticians, Personal Trainers, Massage Therapists and many others.

Questions to ask during the interview?

- What lead the person to choose a career involving Anatomy and Physiology?
- What are the educational requirements necessary for this career?
- What experience is required to enter this career?
- Are there ample job opportunities in this field?
- What is a typical day like?
- What is the starting or average salary?
- What are some of the things they like about their job? Dislike?
- What would they recommend to someone interested in pursuing their field?

4. Community organization  **Due July 3rd**

Research an approved community organization that is dedicated to fighting a specific disease/disorder or to improving the health of a specific segment of the population. Write a **FULL 2-3 page** summary of your findings.

Some approved organizations include: American Heart Association, American Lung Association, American Diabetes Association, March of Dimes, American Cancer Society, Crohn’s and Colitis Foundation of American, ALS Association, Autism Speaks, and National Kidney Foundation. If you have another organization you would like to research please see me for approval.

Your summary should include the following:

- Organization’s name, history, purpose, goals, and target population(s).
- Answer the following questions:
  - How does this organization raise money for research?
  - What educational programs or community outreach does this organization offer?
  - What contributions has this organization made to society?
  - Do you have personal history with this organization? If so, what involvement did you have?