Syllabus for Biology 2402 – Human Anatomy and Physiology II
Spring 2011

Instructor: Mickey Dufilho
Office: B236
Office phone: 230-3191
Email: mickey.dufilho@brazosport.
Alt. Phone: Office Professional - Connie Davis Office: B-202 Office phone: 230-3225

1. **Course Description**
   Human Anatomy and Physiology II is a study of various organ systems of the human body including: cardiovascular, lymphatic, immune, respiratory, digestive, urinary, and reproductive systems. Emphasis is on understanding the physiology of negative and positive feedback mechanisms associated with these organ systems.

   Weekly laboratory activities are designed to complement and/or coincide with lecture topics. Laboratory activities will include use of various organ system models, group activities, and dissections of preserved or fresh specimens of hearts, lungs, etc. No live animal experiments are used. The students will be guided through a study of the structural anatomy of the organs as well as the physiological processes involved in each organ system.

2. **Prerequisites**
   Students must have successfully completed BIOL 2401- (A&P 1) at an accredited college. Certain EMS or medical work experiences may be substituted to fulfill this requirement. **See your instructor today if you have not successfully completed BIOL 2401 (A&P 1).**

3. **Course Goals**
   **The following are the student learning outcomes:**
   1. Students will demonstrate knowledge of the cardio-vascular system and control, including: blood, circulation, tissue perfusion and capillary exchange, cardiac muscle fibers, the intrinsic conduction system, and circulation through the heart.
   2. Students will demonstrate knowledge of the roles of various cells and chemical substances involved in our nonspecific and specific defense responses.
   3. Students will demonstrate knowledge of the anatomy and functions of the components of the respiratory system.
   4. Students will demonstrate knowledge of the respiratory system, including: pulmonary ventilation, gas transport, internal respiration, and respiratory control.
   5. Students will demonstrate knowledge of the anatomy and functions of the gastro-intestinal tract.
   6. Students will demonstrate knowledge of the anatomy and functions of the urinary system including detailed functions of each segment of the nephron.
   7. Students will demonstrate knowledge of the principles of pH, acids and bases, as well as the three methods (chemical buffers, respiratory adjustments, & renal adjustments) by which the body tries to maintain proper pH of ECF.
   8. Students will demonstrate knowledge of fluid and electrolyte balance, including: pH imbalances causes and cures, interpretation of ABG’s, fluid compartments and shifts, and feedback and control mechanisms.
9. Students will demonstrate knowledge of the anatomy and functions of male and female reproductive organs.
10. Students will demonstrate knowledge of the reproductive system, including the hormonal controls of the ovarian and menstrual cycles, and pregnancy and childbirth.

4. **Textbook**
   **Required:** *Human Anatomy & Physiology*, 8th Ed., 2010, by Marieb and Hoehn. You will need it for both lecture and lab. Study Guides for each test will be posted on the web. These will cover the most important topics but not all of the required information.
   **Optional & Recommended:** *Encyclopedia & Dictionary of Medicine, Nursing, and Allied Health*, 7th Ed., by Miller-Keane. This is a useful source for terminology definitions as well as for the causes, signs & symptoms, and treatments of many diseases and disorders.
   **CD Rom – Interactive Physiology.** This CD comes with your text and is full of great tutorial animation clips, explanations, and practice quizzes.
   **Web Resources:** Mastering A&P at [www.masteringaandp.com](http://www.masteringaandp.com)
   Lecture material [brazosport.edu/current students/faculty/Mickey Dufilho/A&P 2](http://www.brazosport.edu/current students/faculty/Mickey Dufilho/A&P 2)

5. **Lab Requirements**
   This course has a weekly 3 hour laboratory. The required textbook for the course will be used in the laboratory. You will receive a handout at the beginning of each laboratory to be used as a study guide along with instructor notes and other activities to provide an opportunity to learn the anatomy and physiology related of various organ systems in a “hands on” environment.

6. **Students with Disabilities**
   Brazosport College is committed to providing equal education opportunities to every student. Brazosport College offers services for individuals with special needs and capabilities including counseling, tutoring, equipment, and software to assist students with special needs. Please contact Special Populations Counselor, 979-230-3236 for further information.

7. **Academic Honesty**
   Brazosport College assumes that students eligible to perform on the college level are familiar with the ordinary rules governing proper conduct including academic honesty. The principle of academic honesty is that all work presented by you is yours alone. Academic dishonesty includes, but is not limited to copying assignments, cheating, plagiarism, and collusion. **This shall be treated with immediate termination from class, an F in the course and recommendation of expulsion from the college.** Please refer to the Brazosport College Student Guide for more information, this is available online at [http://www.brazosport.edu](http://www.brazosport.edu), click on the link found on the left side of the homepage.

8. **Attendance and Withdrawal Policies**
   The Brazosport College Life Sciences Department believes attendance in both lecture and lab is critical for the comprehension of material. I will take attendance in Lecture. **The student is responsible for officially withdrawing from the course.** To officially withdraw
from the course, students must complete and sign a withdrawal form, available in the Registrar’s Office.

9. **Course Requirements and Grading Policy**
Some topics are best addressed in a lecture setting while others are more suited for lab. In general, the emphasis in lecture is on physiology while the emphasis in lab is on anatomy. But, the two are not completely separable. My lectures are in Power Point format and are on the college website [brazosport.edu/current students/faculty//Mickey Dufilho/A&P 2](http://brazosport.edu/current students/faculty//Mickey Dufilho/A&P 2) if you choose to print them out. They are not all inclusive and I will not cover all of the material in lecture. **You are strongly encouraged to take notes.** You must read and study the textbook.

There are typically 5 lecture exams and 12 lab quizzes. In general, lecture exams test your knowledge of the topics covered in lecture while lab quizzes test your knowledge of topics covered in lab. Grades for the course are based 60% on lecture exams and 40% on lab quizzes. **You must take lab quizzes and lecture exams during your scheduled lab and lecture time.** There may be optional assignments throughout the semester.

10. **Testing**
**Lab quizzes** are given weekly at the beginning of lab. Come early. Questions are not repeated for late arrivals. Only your 10 best scores are used to calculate your average. If you take all five lecture exams at their scheduled times you have the option of taking the comprehensive final exam to replace a lower exam score. If you miss one of the five lecture exams you will take the comprehensive final exam during finals week as a “makeup” to replace the missing score. If you miss more than one lecture exam only one score can be replaced. The other(s) will remain as zeros. You should most likely withdraw from the course and retake it another semester.

11. **Make-up policy**
**There are no makeup lab quizzes or lecture exams.**

12. **Student Responsibilities**
Students are expected to fully participate in the course. The following criteria are intended to assist you in being successful in this course.
   a. Understand the Syllabus Requirements
   b. Use appropriate time management skills
   c. Communicate with your instructor
   d. Complete course work on time
   e. Utilize online components as required
   f. Print materials from web as needed

13. **Projects, Assignments, Portfolios, Service Learning, Internships, etc.**
There will be special projects and assignments. The requirements will be listed in a separate document.
14. Other Student Services Information

- Information about the Library is available at http://www.brazosport.edu/~lib/Information.htm or by calling 979-230-3310.
- Information about study skills and tutoring for math, reading, writing, biology, chemistry, and other subjects is available in the Learning Assistance Center (LAC), see www.brazosport.edu/~lac or call 979-230-3253.
- To contact the Life Sciences Department call 979-230-3225.
- The Student Services provides assistance in the following:
  - Counseling and Advising 979-230-3040
  - Financial Aid 979-230-3294
  - Student Activities 979-230-3355.

- To reach the Information Technology Department for computer, email, or other technical assistance call the helpdesk at 979-230-3266.
Biology 2402 – A&P II – Spring 2011
The Whole Semester at a Glance

5 lectures
Chapter 17 – Blood
Chapter 18 – Cardiovascular System: The Heart
Chapter 19 – Cardiovascular System: Blood Pressure

EXAM 1 – Mon. Feb. 7

4 lectures
Chapter 20 – Lymphatic System
Chapter 21 – Immune System: Innate and Adaptive Body Defenses

EXAM 2 – Mon Feb. 28

7 lectures
Chapter 22 – Respiratory System
Chapter 23 – Digestive System
Chapter 24 – Body Temperature Regulation & Heat Related Illnesses

EXAM 3 – Mon. April 4

4 lectures
Chapter 25 – Urinary System
Chapter 26 – Fluid, Electrolyte, and Acid-Base Balance

EXAM 4 – Wed. April 20

3 lectures
Chapter 27 – Reproductive Systems
Chapter 28 – Pregnancy and Childbirth

EXAM 5 – Wed. May 4

FINAL EXAM – Mon. May 9 - 8:00 – 10:00 - . Must sign up in advance.