**Anatomy and Physiology II**

**SCI 202**

**Fall 2019**

**Instructor: Mark Beaumont**

**Office Hours: By appointment**

**Email: mbeaumont@rcc.mass.edu**

**Office hours: Tuesday and Thursday 5-6 pm**

**Meeting times: Lecture-Tuesday-6:00-9:00 pm**

**Lab-Thursday-6:00-9:00 pm**

**REQUIRED MATERIAL:**

The lecture materials are available as open educational resources in as many formats as possible. A main concern is to have versions that can be read on mobile devices (phones, tablets and laptops), which are now preferred by most students.

**Lecture Text: “Fundamentals of Anatomy and Physiology”. Martini 11th edition**

<https://openstax.org/details/books/anatomy-and-physiology>

**Lab Text: Laboratory Manual for Anatomy and Physiology**

**Course Description:**

This course covers a survey of the human body that stresses biological principles, chemical interpretations, and physical applications at the various levels of organization. The class lectures cover embryonic and physiologic theories of muscular, nervous, integument, skeletal, and endocrine systems. The class laboratories examine the integument, skeletal, and nervous systems. The department encourages students to complete Principles of Biology II/Lab (BIO102) and/or Chemical Science I/Lab (CHM110) before enrolling in this course. Course meets: 3 hrs. lecture; 3 hrs. lab.

**(4 Credits)**

**Prerequisites:** Principles of Biology I/Lab (BIO101) or Human Biology/Lab (BIO108) or General Biology I/Lab (BIO195).

**Tutoring:** Academic help can be obtained in the Tutoring and Support Center, in the E-Building.

**Course Objectives:**

To obtain broad knowledge of the biology and properties of organ systems.

To obtain specific knowledge of the interaction between human organ systems.

To obtain specific skills through laboratory experience that reinforce the lecture information regarding organ systems.

**Tentative Lecture and Laboratory Schedule:**

**9/5**

Week 1-Orientation

**9/10 & 9/12**

Week 2-Endocrine System & Lab 1

Chapter 17 reading and homework

**9/17 & 9/19**

Week 3-Cardiology & Lab 2

Chapter 19 reading and homework

**9/24-Exam #1**

Week 4

**9/26**

Blood vessels & Lab 3

Chapter 20 reading and homework

**10/1 & 10/3**

Week 5-Hematology & Lab 4

Chapter 18 reading and homework

**10/8 & 10/10**

Week 6**-**Immune System & Lab 5

Chapter 21 reading and homework

**10/15-Exam #2**

Week 7

**10/17**

Respiratory System & Lab 6

Chapter 22 reading and homework

**10/22 & 10/24**

Week 8-Respiratory System & Lab 6

Chapter 22 reading and homework

**10/29 & 10/31**

Week 9-Digestive System & Lab 7

Chapter 25 reading and homework

**11/5 & 11/7**

Week 10-Urinary System & Lab 8

Chapter 23 reading and homework

**11/12-Exam #3**

Week 11

**11/14**

Male reproductive system & Lab 9

Chapter 27 reading and homework

**11/19 & 11/21**

Week 12-Male reproductive system

Chapter 27 reading and homework

**11/26-NO CLASS THANKSGIVING**

**12/3 & 12/5**

Week 14-Female Reproductive System & Lab 10

Chapter 28 reading and homework

**12/10**

Week 15-Exam#4

**Grading:**

Exams-40%

Homework-15%

Quizzes-15%

Lab assignments-20%

Class participation and attendance-10%

##### **THERE ARE NO EXCEPTIONS TO THE ABOVE GRADING SYSTEM**

**Quizzes**

Quizzes will be given periodically during the semester. The material on the quizzes will be based on lecture material which is taken from the textbook.

**Written summaries of the lecture material**

For each chapter that we cover students are assigned to hand write a 3 paragraph summary detailing important concepts that cover anatomy and physiology. Learning objectives and concepts have been posted on the RCC LMS class website and you can refer to.

**Attendance:**

You are expected to attend **all** class meetings.

**NO FOOD OR BEVERAGES IN THE CLASS ROOM**

**CELL PHONES AND PAGERS MUST BE TURNED OFF UNLESS YOU WANT TO BE EMBARASSED!**

**CHEATING WILL NOT BE TOLERATED. YOU WILL RECEIVE A ZERO FOR THE EXAM AND BE ASKED TO LEAVE THE ROOM.**

**BHCC STUDENT HANDBOOK CLEARLY STATES THE CODE OF CONDUCT FOR ALL STUDENTS ON CAMPUS. PLEASE REVIEW IT.**

**TUTORING AND ASSISTANCE**

If a student is having difficulty with the material or has questions, s/he should contact the instructor by email to setup a one-on-meeting.

Tutoring help can also be obtained from a Science Tutor in the Multimedia Assistance Center.

**POLICY FOR STUDENTS WITH A DISABILITY**

**College Accommodations and Support Services**

The Office of Disability Support Services is a student-focused department dedicated to assisting members of the BHCC community with documented physical and/or learning disabilities. Students may be eligible for services that include tutoring, testing and other classroom accommodations. To get more information or request an accommodation, contact the Disability Support Services. Students are encouraged to request accommodations as early as possible and ideally before the start of the semester.

**A&P II Lab Guide Section 01 Fall 2019**

**TENTATIVE LAB SCHEDULE**

**Subject to change when needed**

**DATE TOPIC LAB EXERCISE**

## Sep. 5 Laboratory Orientation

Assignment of Slides and Microscope

Sep. 12 Endocrine Glands 33

Sep. 19 Anatomy of the Heart 35

Sep. 26 Anatomy of the Systemic Circulation 36

Oct. 3 Blood and Cardiovascular Physiology 34, 37

Oct. 10 Lymphatic System 38

Oct. 17 Anatomy of the Respiratory System 39

Oct. 24 Physiology of the Respiratory System 40

Oct. 31 Anatomy of the Digestive System 41

Nov. 7 Digestive Physiology 42

Nov. 14 Anatomy of the Urinary System 43

Nov. 21 Lecture and Anatomy of the Reproductive 45

System (Male Reprod.)

Nov. 28 NO CLASS THANKSGIVING

Dec. 5 Lecture and Anatomy of the Reproductive

System (Female Reprod.) 45

**Anatomy & Physiology Laboratory Rules**

The following rules apply to all Anatomy & Physiology students while using the lab. Please read the following rules carefully. Keep this list in your laboratory notebook.

1. All students should come prepared.

2. Note the locations of the following safety devices: exits, shower, fire extinguisher, fire blanket, eye wash, gas switch, first aid kit, and burn station.

3. Be sure to place all books, coats, and articles other than your lab book and textbook under your lab bench. Please make sure that all the isles are free from any obstructions.

4. There is to be NO FOOD OR DRINK IN THE ROOM during lab time, this includes GUM!!!!!!

5. Long hair, loose/baggy/belled sleeves or baggy shirts that may catch on fire must be pulled back, or not be worn. In addition no open-toed shoes or sandals are allowed in lab.

6. Young children and pets of any sort are not allowed in the laboratory. If you plan to bring an older child to class, you must have permission of the lab instructor.

7. Lab aprons, glove, and goggles will be provided. These items must be worn when your instructor tells you to do so.

8. Always wash work areas with disinfectant at the beginning and end of the lab.

9. Always wash hands with soap at the beginning and end of lab.

10. DO NOT THROW any regular trash into the biohazard waste bags. Trash bins are located at the front of the lab for any trash that is not contaminated; such as paper towels form hand washing, scrap paper, tissues, candy and gum wrappers. PLEASE DO NOT THROW trash into sinks or drawers.

11. NEVER throw broken glass into the biohazard bag or the trash bins. Report any broken glass to the instructor who will take care of it. This includes glass slides and cover slips.

12. Please be sure that all glass wear and materials used during lab are put back where you got them and IN THE CONDITION IN WHICH YOU RECEIVED THEM!

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