



Course Syllabus

BIO 1220: Anatomy and Physiology II

Arts and Science Division

Class Days: Class Time:
Location: Classroom: Laboratory:
Credit Hours: 4 Contact Hours: 5 Lab Hours: 2 Lecture Hours: 3

Instructor: Office Location:
Phone: Email Address:
Office Hours:
Division Office/Location: A202 Division Fax: 419-355-1248
Full-time Contact Person: Heather Hug Phone(s): 419-559-2388

Course Description

This is a continuation of BIO 1210. This course focuses on gross and microscopic structure and function of, as well as an emphasis on homeostatic control mechanisms of each system. This course includes a lab component that focuses on practical applications of the material presented in lecture. Upon completion, students should be able to demonstrate knowledge of anatomical and physiological aspects of the endocrine system, blood and cardiovascular system, respiratory system, digestive system, and reproductive system.

Prerequisite(s): A grade of "C" or better in BIO 1210

Co-requisite(s): None

Entry Level Skills and Knowledge: Students should know basic metric measurements, and exponential and scientific notation.

Texts, Supplies and Equipment

Required:

Fundamentals of Anatomy and Physiology, 7th edition, Martini, Pearson; Benjamin Cummings, 2003

Companion Website for text (www.anatomyandphysiology.com)

Martini Interactive CD-ROM (packaged with text)

Laboratory textbook of Anatomy and Physiology, 3rd edition, Wood, Prentice Hall, 2003.

Dissecting kit (Available in College bookstore, by week 2)

A box of latex disposable gloves

Suggested:

Study Guide for the Fundamentals of Anatomy and Physiology, 7th edition, Martini, Pearson; Benjamin Cummings, 2003

Atlas of the Human Body, 7th edition, Martini, Pearson Education, 2003.

Lab coat/apron

Learning Outcomes

General Education:

3. Demonstrate an understanding of cultural differences and the knowledge of how to work effectively in a global and diverse culture and society.
4. Employ the methods of inquiry characteristic of natural sciences, social sciences, mathematics, and the arts and humanities

Course:

1. Describe the chemical structure of the major classes of hormones, hormone distribution transport, function and mechanisms of action.
2. Describe the important structures and functions of cardiovascular system, lymphatic system, respiratory system, digestive system, urinary system, and reproductive system.
3. Describe the digestion and absorption of organic and inorganic nutrients.
4. Describe the processes involved in the formation of urine.
5. Discuss fluid balance and acid-base balance and their importance in homeostatic regulation.
6. Describe gamete formation and the process of fertilization.
7. Explain how developmental processes are regulated and relate the basic principles of genetics to the inheritance of human traits.
8. Students will work in small groups in a safe laboratory environment with each group member doing an equal share of the work.

Assessment of Student Learning:

This course may include a project that is one of several that will be used by faculty to assess student academic performance in the program. A panel of faculty will review all (projects or whatever assessment activity you are doing), then assess and summarize the academic performance of students at this point in the program. The results of this assessment will be shared among the department faculty, used to identify needed changes or improvements, and submitted to the Student Academic Assessment Committee as part of the college's overall student academic assessment effort.

Assessment Project and Measurement in course (if any):

Course Requirements

Attendance is required for all test and exams. If you are unable to attend class on an exam day, **you must** contact your instructor, preferably before the test or exam, but no later than 24 hours after the exam, if you want to be considered for making up the missed points. If you cannot reach your instructor, send an email to hhug@terra.edu, call 419-559-2388, or leave a message at the department office by calling 419-559-2411. Be sure to include your name and phone number.

Attendance in lecture is strongly recommended. Some exam material may be covered in lecture and not found in the text.

Attendance is required for laboratory work. Since a new lab needs to be set up each week, there will be no make-ups for missed labs. If you are unable to attend your scheduled lab class and you ask in advance and space is available, you may attend another session for that week. Lab write-ups are due one week after the lab is completed at the beginning of class. If you attend a different lab, your work is due to your regular instructor at your next regularly scheduled class time with the instructor's signature of the lab you substituted. Late work is not accepted, except in extenuating circumstances as determined by your instructor.

Quizzes are at the discretion of each instructor.

Students must achieve a grade of "C" or better to continue in the Nursing Program.

Plan of Work

Lecture Week	Activities	Martini chapter
1	Introduction; review of homeostasis	1
2	Endocrine System	18
3	Blood and Introduction to Cardiovascular System	19
4	Test I	(1,18-19)
	Heart and cardiovascular physiology	20,21
5	Heart and cardiovascular physiology	20,21
6	Lymphatic System	22
7	Respiratory System	23
8	Control of Respiratory System	23
	Test II	(20-23)
9	Digestive System	24
	Metabolism of Biomolecules	25
10	Urinary System	26
11	Test III	(25-26)
	Fluid and ion balance	27
12	Acid-Base balance	27
13	Reproductive System	28
14	Development and Inheritance	29
15	Test IV	(27-29)
	Review for Final	
16	Comprehensive Final Exam	

Lab Week	Activities	Wood chapter
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1	The Endocrine System	33
2	Blood	34
3	Anatomy of the Heart	35
4	Cardiovascular physiology	37
5	Review	
	Practical I	(33-35,37)
6	Blood Vessels	36
7	Blood Vessels	36
8	Blood Vessels	36
9	Lymphatic Systems	38
10	Review	
	Practical II	(36,38)
11	Respiratory Systems	39,40
12	Digestive System	41,42
13	Urinary System	43,44
14	Reproductive System & Development	45,46
15	Review	
	Practical III	(39-46)

Grading

4 exams (150 each)	600
Final exam	300
3 Lab exams	150
<u>Lab reports</u>	<u>150</u>
TOTAL POINTS	1200

Grading Scale:

A -	90%-100%
B -	80%-89%
C -	70%-79%
D -	60% -69%
F -	59% or less

Policies

Course Withdrawing: If for any reason you need to withdraw from this course, be certain that you do so according to College procedure. It is your responsibility to know and follow this procedure. If you simply stop coming to class, without officially withdrawing from the course, your grade is an automatic "F." Please follow official College procedure for withdrawing from this or any course.

College Academic Policies are located in the College Catalog. A copy of the current catalog may be picked up in any of the division offices or admissions. The list of college policies is also available online at <https://www.terra.edu/register/Collegecat/policies.asp>.

Support Services: The College offers a number of support services to assist in your success in this course and all courses. Among these services are the Writing & Math Center in B105, the Office of Learning Support Services, which coordinates the campus disability services and tutoring programs, the computer labs, and the computers in the atriums.

Support Services cont.

Any student who feels he/she may need an accommodation based on the documentation of a disability should contact the Office of Learning Support Services privately to discuss his/her specific issues. Please contact the OLSS at (419) 334-8400 X 208 or visit 100 Roy Klay Hall (Building A) to coordinate reasonable accommodations.

If you have a documented disability and are receiving academic accommodations through the Office of Learning Support Services, please schedule a meeting with your instructor in a timely manner so that we may discuss how these services will be arranged.

Tutoring services are available to students beginning the second week of every quarter. Students requesting tutoring services should obtain a tutor request form from the OLSS in 100 Roy Klay Hall (Building A) or online at the Terra website. Please note that instructor verification and acceptance of the Student Learner Agreement is necessary for all tutoring requests. All requests should be submitted to 100 Roy Klay Hall (Building A).

Tips for Success in Anatomy & Physiology:

1. Ask yourself why you took this course and what you plan to obtain from this course. When answering these questions, set a goal for yourself. I would recommend your goal not be a letter grade or percentage as these are merely letters and numbers. Enter goal here: _____

By setting a goal, you are motivated to stay focused and accomplish what it is you want from this course.

2. You must plan to spend 2 hours per day or at least 8-10 hours per week outside of lecture and lab to master the material. Frequent review is encouraged as studies show the human brain can only comprehend information in a maximum of two hour time blocks.

3. Looking at each chapter's 'concept check' questions within the reading and answering the end-of-chapter review questions is a great way to review for exams.

4. The study guide is a good way to synthesize the lecture and lab material.

5. The final exam is comprehensive. As every system in the human body is interdependent so is the information I expect you to retain from exam to exam, as well as, from semester to semester.