NATURAL SCIENCES DEPARTMENT
HOSTOS COMMUNITY COLLEGE
of THE CITY UNIVERSITY OF NEW YORK

BIO 240 (formerly BIO 3908/3910), **ANATOMY AND PHYSIOLOGY II**
Section/Registration Code*, 4 credits. 3-hr. lecture/3-hr. lab*
Professor

Meets:	Room, day, time
Email:	CUNY email address
Office:	Room, days, times, or by appointment Full physical address
Phone:	Office phone
Contact Policy:	Which email accounts will be recognized? When will emails be read and answered? How are appointments made? How are appointments cancelled? What about being late for an appointment? Any alternate methods of contact?

COURSE DESCRIPTION:

The student will study and describe the structure and function of the urinary, respiratory, digestive, endocrine, nervous, and reproductive systems.

COURSE OBJECTIVES:

By the end of the course, students will:

1. **interpret scientific observations and delineate conclusions**
2. **comprehend and learn from texts and lectures, take notes, analyze and synthesize the material, and respond with informed questions/reports**
3. **locate, evaluate, and use information in a variety of formats and organize, analyze, evaluate, treat critically and present that information in a cohesive and logical fashion**
4. **acquire important knowledge and information for life-long learning**
5. **learn experimental techniques and laboratory skills such as microscopy and dissection**
6. **enhance their writing ability and critical thinking skills by preparing lab reports**

Prerequisite: *BIO 230*

TEXTBOOK: Visual Anatomy & Physiology, Frederic H. Martini, and William C. Ober, Pearson,
Hardcover ed. ISBN 0-321-76937-6
Loose leaf ed. ISBN 1-256-16589-1
www.pearsonhighered.com

LABORATORY MANUAL, Anatomy & Physiology in the Laboratory, Erin C. Amerman,
Pub. Morton, ISBN: 089582-797-2
http://www.morton-pub.com

Graded assignments: The Final grade will be determined by the grades on lecture and lab combined as follows:

Lecture	**75%:**
Laboratory	**25%:**
Total Grade for Course	**100%**

*****You must take both the lecture and laboratory final exams in order to pass the course . Failure to take one or both of the final exams will result in an INC or an F. If you get an INC you must take a "makeup" exam before the deadline of the INC will be changed to an F. ******

++ You must label the diagrams and answer the questions in you laboratory manual for each laboratory exercise that we do in class.

The grade of Incomplete (I) is given in regular courses upon request of the student for personal emergencies that are verifiable. The faculty member has the responsibility to provide Inc grade only to those students **who are passing the course**. The student has the responsibility to take the initiative in completing the work, and is expected to make up the incomplete during the first semester in residence after receiving the grade of Incomplete. If the student does not make up the incomplete during the following semester after receiving it**, an F grade may be given by the faculty member without further consultation with the student.**

If after the end of the first semester the Inc remains on the record it will be designated as an F and will be computed in the student's GPA.

Policy Grade: The college uses the following grades:

A,A$^-$ for excellent work

B$^+$, B, for good work

B$^-$ C, for fair work

D, for poor work

F, for failure

I, for incomplete

WU, for unfinished incomplete, equivalent to F

W, for withdrawn

Grade		GPA Value
A	93-100%	4
A$^-$	90-92%	3.7
B$^+$	87-89%	3.3
B	83-86%	3
B$^-$	80-82%	2.7
C$^+$	77-79%	2.3
C	70-76%	2
D	60-69%	1
F	below 60%	0

There is no R grade in this course.

Lecture and Lab Participation:

Your participation in class is an important part of the final grade. This grade is based primarily on your participation in class discussions, in team projects and your attendance. For each class you miss, you will lose participation points. If you miss 25% or more of the term, you will fail.

Students with disabilities:
If any student has a disability that requires course accommodations, please contact me by phone or email as soon as possible to discuss your situation. I will be pleased to meet with you to discuss the matter as well. If you have not already done so, you should register with the college's office of **Services for Students with Disabilities**, located in the Savoy building in Room D101P; telephone: **718-518-4454**. The office will assess your eligibility for services and / or accommodations and will work with you to plan and implement appropriate accommodations to assist you to complete requirements for this and other courses.

Academic Integrity:
Hostos Community College believes that developing student's abilities to think through issues and problems by themselves is central to the educational process. Since the Hostos College degree signifies that the student knows the material s/he has studied, and the practice of academic dishonesty results in grades or scores that do not reflect how much or how well the student has learned, understood, or mastered the material, the College will investigate any form of academic dishonesty brought to its attention. If the charge of academic dishonesty is proved, the College will impose sanctions. The three most common forms of academic dishonesty are cheating, plagiarism, and bribery.

In the collegiate setting, cheating is defined as the purposeful misrepresentation of another's work as one's own. Faculty and students alike are responsible for upholding the integrity of this institution by not participating either directly or indirectly in act of cheating and by discouraging others from doing so. Plagiarism is a form of cheating which occurs when persons, even if unintentionally, fail to acknowledge appropriately the sources for the ideas, language, concepts, inventions, etc. referred to in their own work. Thus, any attempt to claim another's intellectual or artistic work as one's own constitutes an act of plagiarism. In the collegiate setting, bribery involves the offering, promising, or giving of items of value, such as money or gifts, to a person in a position of authority, such as a teacher, administrator, or staff member, so as to influence his/her judgment or conduct in favor of the student. The offering of sexual favors in exchange for a grade, test score, or other academic favor, shall be considered attempted bribery. The matter of sexual favors, either requested or offered, in exchange for a grade, test score or other academic favor, shall also be handled as per the Sexual Harassment procedures of the College.

If you are suspected of plagiarism or cheating or if you attempt to bribe or influence your professor, you will be immediately reported to the college's Academic Integrity Officer. You will be unable to drop the class. The penalties range from an F with a score of 0 for an assignment to Failure for the entire term to expulsion from The City University of New York.

Attendance:
Students are expected to attend all class meeting in the courses for which they are registered. Classes begin at the times indicated in the official schedule of classes. Arrival in class after the scheduled starting time constitutes lateness.

The maximum number of absences is limited to 15% of the number of scheduled class hours per semester and a student absent more than the indicated 15% is deemed excessively absent. Attendance is monitored from the first official day of classes. In the case of excessive absences or lateness, the instructor has the right to lower the grade, assign a failing grade, or assign additional written work or readings.

Absences due to late registration, change of program, or extenuating circumstances will be considered on an individual basis by the instructor. Each department and program may specify in writing a different attendance policy. Instructors

are required to keep an official record of student attendance and inform each class of the College's or department attendance policy.

No student under any circumstances will be given a passing grade in this Biology course without taking and passing the laboratory. Four (4) unexcused absences from the lab are equivalent to an F.

LECTURE SUBJECT AREAS		TEXT CHAPTERS/PAGES
1.	Respiratory System	20/ 720 -759
2.	Digestive System	21/ 760 - 809
	Metabolism and Energetics	22/ 810 - 845
3.	Urinary System	23/ 846 - 823
	Fluid, Electrolyte, and Acid-Base Balance	24/ 884 - 907
4.	Reproductive Systems	25/ 908 - 943
	Development and Inheritance	26/ 944 - 979
5.	Endocrine System	16/ 540 - 573
6.	Neural Tissue	11/ 362 - 393
	Spinal Cord, Spinal Nerves, and Spinal Reflexes	12/ 394 - 425
	The Brain and Cranial Nerves	13/ 426 - 460
	The Autonomic Nervous System	14/ 470 - 495
7.	The Special Senses	15/ 496 - 539

	LECTURE SYLLABUS	PAGES	Date
1.	**RESPIRATORY SYSTEM**	**Chapter 20**	
	SECTION 1: Functional Anatomy of the Respiratory System	**721 - 733**	
	Section 1 Review	**734**	
	SECTION 2: Respiratory Physiology	**735 - 755**	
	Section 2 Review	**756**	
	CHAPTER 20 Review	**757 - 759**	
2.	**DIGESTIVE SYSTEM**	**Chapter 21**	
	SECTION 1: General Organization of the Digestive System	**761 - 767**	
	Section 1 Review	**768**	
	SECTION 2: The Digestive Tract	**769 - 793**	
	Section 2 Review	**794**	
	SECTION 3: Accessory Digestive Organs	**795 – 805**	
	Section 3 Review	**806**	
	CHAPTER 20 Review	**807 – 809**	
	METABOLISM AND ENERGETICS	**Chapter 22**	
	SECTION 1: An Introduction to Cellular Metabolism	**810 – 815**	
	Section 1 Review	**816**	
	SECTION 2: Digestion and Metabolism of Organic Nutrients	**817 – 835**	
	Section 2 Review	**836**	
	SECTION 3: Energetics & Thermoregulation	**837 – 841**	
	Section 3 Review	**842**	
	CHAPTER 22 Review	**843 – 845**	
3.	**URINARY SYSTEM**	**Chapter 23**	
	SECTION 1: Anatomy of the Urinary System	**846 - 855**	
	Section 1 Review	**856**	
	SECTION 2: Overview of Renal Physiology	**857 – 873**	
	Section 2 Review	**874**	
	SECTION 3: Urine Storage and Elimination	**875 – 879**	
	Section 3 Review	**880**	
	CHAPTER 23 Review	**881 - 883**	
	FLUID, ELECTROLYTE, AND ACID-BASE BALANCE	**Chapter 24**	
	SECTION 1: Fluid & Electrolyte Balance	**885 – 892**	
	Section 1 Review	**894**	
	SECTION 2: Acid – Base Balance	**895 – 903**	
	Section 2 Review	**904**	
	CHAPTER 24 Review	**905 - 907**	

LABORATORY SYLLABUS

LAB #		UNIT	PAGES
1.	Respiratory System: Anatomy Models, Microscope slides & Fetal pig dissection	21	473 - 496
2.	Respiratory System: Physiology Pulmonary volumes & capacities (spiropet handout) Effect of CO_2 on pH of solution Compare temperature of inhaled & exhaled air	22	497 - 512
3.	Digestive System: Anatomy Models, Microscope slides & Dissection of Fetal pig	25	549 – 582
4.	Digestive System: Enzyme Action Protein digestion Lipid emulsification Lipid digestion		
5.	Urinary System: Anatomy Models, Microscope slides & Sheep kidney dissection	23	513 - 534
6.	Urinary System: Physiology Urine analysis part 1 & 2 Fetal pig dissection	24	535 - 548
7.	Reproductive Systems Anatomy: Models & Microscope slides Gametogenesis	27	605 - 626
8.	Reproductive System Continued Human Development & Heredity Fetal pig dissection	27 28	605 - 626 627 - 650
9.	Endocrine System	26	583 - 604

10.	**Neural Tissue**	**12**	**259 - 276**
	Central Nervous System	**13**	**277 - 302**
	Models, Microscope Slides and Sheep Brain Dissection		
11.	**Peripheral & Autonomic Nervous System**	**14**	**303 – 332**
	Diagrams & Models		
	Testing Cranial Nerves		
	Autonomic N.S.:		
	Blood Pressure & Heart Rate in response to exercise		
12. & 13	**General and Special Senses**	**15**	**333 – 360**
	Models, Microscope Slides & Dissection of Sheep Eye		
	Compare distribution of Rods & Cones		
	Testing extraocular muscles		
	Hearing acuity, Weber test, Rinne test, Equilibrium		
	Cutaneous sensation		
14.	**Review**		
15.	**Lab Final**		

LECTURE EXAMS	Tentative Date	Chapters Covered
Exam #1		
Exam #2		
Exam #3		
Exam #4		
Final Exam		

LAB EXAMS AND QUIZZES	Tentative Date	Exercises Covered
Lab Final		