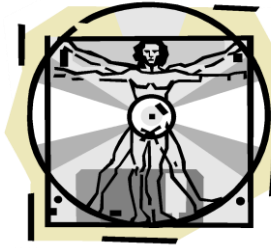


Bio 201 -- Human Anatomy & Physiology I (lecture)
National University



Course Syllabus

Instructor

Mr. Todd Kennedy
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Textbooks

Principles of Anatomy and Physiology, 14th Edition by Gerard J. Tortora and Bryan H. Derrickson.
[Class ID is _____ for use on “wileyplus”]

Course philosophy

Two academic principles underlie this course. The first is that reasonably high, but realistic, standards are set for the students. This is based on the idea that students get the most out of a course when they are encouraged to work hard. Second, this course represents an informal contract between the teacher and student, where each expects honest effort from the other. As the teacher, I pledge to put my best effort into explaining the course material and helping each student understand the concepts. I assume reciprocal effort by each student -- namely, that each student will work his or her hardest to learn the course material.

Course description and goals

This course is the first of two courses on human anatomy and physiology. Areas for study include anatomical terminology, cells and tissues, chemistry, and selected organ systems (Skeletal, Muscular, Integumentary & Nervous), and their functional relation to each other.

Learning objectives

1. Demonstrate knowledge of the physiology of cells, cell membranes, and body tissues.
2. Demonstrate knowledge of the structure and function of skin, epithelial membranes, and connective tissue membranes.
3. Describe the structure and function of the skeletal system.
4. Describe the structure function and physiology of the muscular system.
5. Demonstrate knowledge of the nervous system.
6. Describe the structures and physiology associated with the nervous system and senses.
7. Demonstrate knowledge of the mechanisms involved in homeostasis.
8. Collaborate with peers in learning and summarizing course material.
9. Develop oral communication and presentation skills.

Prerequisites:

National University's goal is for all students to achieve their academic potential, and to have a positive learning experience in the BIO201-203 series. Department of

Mathematics and Natural Sciences has developed advice for students for the courses BIO 201-203. The purpose of this advice is to ensure that students are properly prepared for the materials in these courses.

The Department's advice to students is:

1. Health Science and Pre-Nursing students that are new to National University should take the Areas A-E program requirements (eg. ENG 100, ENG 101, COM 200, ILR 260) before taking BIO201-203. This will enable students to adjust to the pace of National University, while strengthening their written communication and exam skills.
2. Before taking BIO201-203, students should have taken introductory biology and chemistry (BIO100, 100A, 101, 101A), or the equivalent, within the past 5 years.
3. Students should take BIO201-203 in the numerical sequence. This scheme familiarizes students with the laboratory before taking BIO203, which is the most laboratory intensive course.

Diagnostic Self Test

Following are terms and concepts that you should be familiar with from previous science courses. If you are not able to explain these terms, or if they are completely unfamiliar, then this is a strong indication that you need to take lower level biology before enrolling in BIO201-203.

Diffusion / Osmosis

pH scale: acids, bases

Cell structures: cytoplasm, cell membrane, nucleus, DNA, RNA, mitochondria, ribosomes.

Cell division: mitosis and meiosis

Cellular respiration

CLOs Bio201

- * Describe the physiology of cells and cell membranes, including membrane transport processes.
- * Explain the structure and function of skin, epithelial membranes, and connective tissue membranes.
- * Describe the process of bone formation, growth and function.
- * Identify bones and joints of the human skeleton.
- * Explain how muscles contract.
- * Describe mechanisms of signal transduction by the nervous system, including action potentials and synaptic transmission.
- * Describe the anatomy and physiology of the central and peripheral nervous system.
- * Explain how the special senses operate.

"National University is committed to providing equitable access to learning opportunities for all students. Student Accessibility Services (SAS) is the office that collaborates with students who have disabilities and faculty members to provide and/or arrange reasonable accommodations.

If you have, or think you may have, a disability (e.g., mental health, attentional, learning, chronic health, sensory, or physical), please contact SAS at atsas@nu.edu or [858.521.3967](tel:858.521.3967) to arrange a confidential discussion regarding equitable access and reasonable accommodations. To receive any course-related adaptation or accommodation, the student must first be registered with SAS; registration information and steps can be found by visiting www.nu.edu/sas. The SAS team works with students confidentially and does not disclose disability-related information without his/her permission.

If you are already registered with SAS and have a current accommodation letter outlining approved accommodations, we encourage you to contact your instructor early in the term, by the first class session preferably, to review how the accommodations will be applied in the course. You are encouraged to arrange a confidential phone or in person meeting with your professor to discuss the approved accommodations."

Assignments and grading

Weekly quiz	180 points (6 x 30pts)
Oral presentation	60 points
Research paper	70 points
WileyPlus	200 points
Midterm	200 points
Final (non-cumulative)	200 points
<u>TOTAL</u>	<u>910 points</u>

National University's +/- system is used:

A	95 - 100 %	C+	77 - 79 %	D-	60 - 63 %
A-	90 - 94 %	C	74 - 76 %	F	0 - 59 %
B+	87 - 89 %	C-	70 - 73 %		
B	84 - 86 %	D+	67 - 69 %		
B-	80 - 83 %	D	64 - 66 %		

Class schedule -- ALL CLASS MEETINGS ARE Monday

<u>Date</u>	<u>Lecture</u>	<u>Chapter</u>	<u>In-class activity</u>
5/6	An Introduction to the Human Body The Chemical Level of Organization	Chap. 1 Chap. 2	*Students will take a brief quiz based on the previous class each night.
5/13	The Cellular Level of Organization The Tissue Level of Organization	Chap. 3 Chap. 4	
5/20	The Skeletal System:	Chap 6,7,8,9	
5/27	Integumentary Sys Midterm	Chap. 5	

6/3	Muscles and Muscle tissues The Muscular system	Chap. 10 Chap. 11	Oral presentations
6/10	Fundamentals of the N.S. Spinal Cord and Nerves	Chap. 12 Chap. 13	Oral presentations
6/17	Brain and Cranial Nerves The Autonomic N.S.	Chap. 14 Chap. 15	Oral presentations
6/24	Sensory, Motor, Integrative	Chap. 17	Oral presentations

FINAL (non-cumulative):

DUE: Research paper

Saturday class meetings on the schedule are reserved for review, students will be required to e-mail me on those days and indicate that they are working and what they are working on.

Other issues

1. Students are expected to attend all class sessions. Two or more absences may result in removal from the class. Late arrivals after the first break period are recorded as absences.
2. Reminder: if you miss three or more class meetings and do not Withdraw from the course before the 7th class meeting, then the Registrar will assign a grade of F. **It is the student's responsibility, not the instructor's, to officially Withdraw from a course.** See "Attendance Procedures" the General Catalog.
3. Switch cell phones to silent mode during class and put them away. At no time should you have any electronic device out during class. I will warn you one time, after that you'll be asked to leave for the night which will count as an abs.
4. Make up policy: the simplest solution is to do all work on time, I do not accept late assignments. Health, family, or work emergencies may earn extra time for the writing assignments. In the event of an emergency, students are encouraged to email work to me (tmkennedy8@gmail.com) in order minimize any penalty.
5. In the absence of an extreme emergency, a missed exam counts as a zero.
6. For written assignments, my two best pieces of advice are:
 - * Take pride in your work. All written work is to be done on typed or computer-printed sheets. Make an outline of your ideas, and use your writing to bridge the gaps. Give yourself more than the night before the due date.
 - * **Do not plagiarize!** Instructors are pretty good at sniffing out suspected cases of plagiarism. In National University's 2004 General Catalog, the topic "Academic Dishonesty" is discussed on p. 49. It reads: "Plagiarism is the presentation of someone else's ideas or work as one's own. As such, plagiarism constitutes fraud or theft. Plagiarism or academic dishonesty in any form is a grave offense and will not

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be tolerated." Plagiarized assignments receive zero (0) points. Furthermore, as per the Catalog (p. 49): "It is the instructor's responsibility to report any *reasonable suspicion* of plagiarism to the Judicial Affairs Officer so that such behavior may be monitored and repeat offenders identified [italics added]."

Oral presentations

Description

- * Teams of 2-3 students are to prepare oral presentations on one of the topics below.
- * Each presentation is to be at least 10 minutes, but no more than 15 minutes. One student may not do all of the talking for the team.
- * The presentations will occur on _____ (~3 teams will present on each of these dates depending on class size).
- * Each presentation is worth **60 points**, broken down as so:
 - * Information covered (30 points)
 - * References (10 points): clearly identify at least three sources used for information. Websites are acceptable, but they are to be scholarly or those of established medical journals/institutions.
 - * At least two visual aids (10 points)
 - * Organization and clarity of presentation (10 points)
- * A **5-point penalty** will be assigned to teams that go beyond 20 minutes. This is to emphasize the lesson of clearly and concisely presenting a topic.
- * Presentations do not have to be high-tech or Powerpoint. Bringing in posters, book illustrations, or referring to pages in *Goode's word atlas* is sufficient.
- * A written copy of the presentation designating each team member's contribution, properly cited in APA format, will be submitted the night your group presents to turnitin.com. Failure to include this will drop your presentation two letter grades.

Topics

1. Review the causes, detection, treatments and demographics for Alzheimer's.
 2. Review the causes, detection, treatments and demographics for fibromyalgia
 3. Review the causes, detection, demographics, and treatment of skin cancer.
 4. Review the causes, detection, demographics, and treatment of breast cancer.
 5. Review the causes, detection, demographics, and treatment of lung cancer.
 6. Review the causes, detection, demographics, and treatment of prostate cancer.
 7. Review the causes, detection, treatments and demographics for multiple sclerosis
- I am open to other topics of your own choosing, please check with me first.

Research paper

Description

A 2- 2.5K word research paper will be written by each student independently. The paper is worth **70 points** and is due _____ at the beginning of class. Ten (10) points will be deducted from assignments that are handed in after the beginning of class.

Topics: Students are to choose a topic of their own and submit it to the instructor no later than the fifth class meeting.

Example:

“Steps to control diabetes through education about diet and medicine have greatly reduced the number of cases seen in the US over the past 10 years.”

Report format

- * General: clean, stapled, typed or computer-printed pages. Student's name and paper's title appear on a cover sheet or as a header on the first page.
- * Points for the paper are broken down as follows:
 - * 50 points: coverage of information, support of thesis with valid research.
 - * 10 points: quality of references and proper citation of references within text (see below).
 - * 10 points: general style and organization of paper.
- * References: students are to use scholarly sources (e.g., journal articles, authoritative books) for their reports. **You are to include at least five references; no more than 25% of your references can be Internet pages.**
- * Use the APA format for references. Examples of this are given in *The Little, Brown Essential Handbook for Writers* by J.E. Aaron (2003), 4th edition.