

Human Anatomy & Physiology (BIOL206) Course Syllabus - Spring 2008

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Office Hours: Monday & Wednesday 10:45 a.m.- 12:00 p.m. and 1:45 - 2:30 p.m.
Thursday 12:00 p.m. - 2:30 p.m.
Friday 9:00 a.m. - 12:00 p.m.

Textbooks: “Principles of Anatomy & Physiology” by Tortora & Derrickson, 11th edition (Tortora)
“Mammalian Anatomy: The Cat” by Sebastiani & Fishbeck 2nd edition (Sebastiani)
“Biology 206 Laboratory Manual” by the Biology Department staff (BDS)
“A Visual Analogy Guide to Human Anatomy” by Krieger (Kriegar)

Resource materials: Textbook website www.wiley.com/college/apcentral and Sakai site for BIOL206

I. Course Description

- A. BIOL206 is the second half of a two-course sequence in human anatomy & physiology.
- B. Topics include the structure and function of 7 body systems: Cardiovascular, lymphatic, immune, respiratory, digestive, renal, and reproductive. Additional topics such as cellular metabolism, temperature regulation, body fluid regulation, endocrine function, and inheritance will be covered while addressing the aforementioned main body systems.
- C. BIOL206 will provide a good introduction for students interested in health-related careers.

II. Grading Information

- A. The final grade for the course is based on a student’s percentage of points accumulated out of 1150 ± 50 points. These points are **roughly** broken down as follows:
 1. Lecture (~ 825 points)
 - a. Three lecture exams (450 pts.)
 - b. Weekly lecture quizzes (50 pts.)
 - c. Homework assignments (75 pts.)
 - d. Cumulative final exam (250 pts.)
 2. Laboratory (~ 325 points)
 - a. Lab Practical (150 pts)
 - b. Lab Reports (115 pts)
 - c. Ten in-class quizzes (50 pts)
 - d. Online histology quiz (10 pts)

III. Lecture Information

- A. Professor Dolan will post lecture notes and PowerPoint presentations on the Sakai website.
 1. There will often be lecture handouts placed on Sakai. Students should get in the habit of checking Sakai announcements on a daily basis but especially prior to each lecture.
- B. Lecture exams
 1. Exams will consist mainly of fill-in, matching, true-false, and multiple choice questions. There may also be a few questions requiring a “very short” written answer.
 2. All exams are cumulative in the sense that physiological principles and anatomy covered earlier in the course are integrated with subsequent information.
 3. An **unforeseen emergency** (to be subsequently validated in writing) or a **previously authorized absence** (i.e., an athletic event, funeral etc.) are the **ONLY** permissible grounds for missing a **scheduled** exam.
 - a. See Professor Dolan no later than Friday, February 15, regarding any conflicts.

4. Exam Content
 - a. Exam questions will come from class notes, handouts, Sakai postings, Tortora text readings, and pertinent laboratory material.
 - b. Your textbook is primarily used to explain and supplement lecture material.
 - c. Occasionally, due to time limitations, specific text material not covered in class will be assigned for exam knowledge.
 - 1) These occasions will be clearly communicated, either during the lecture period or on the BIOL206 Sakai website.
- C. Quizzes
 1. In addition to scheduled lecture exams, 13 unannounced 5-point quizzes will be given near the end of lecture period.
 2. Quiz questions will be taken from lecture material (verbal, text readings, notes, or PowerPoint slides) covered previously.
 3. The lowest 3 quiz scores will be dropped, and the remaining 10 scores will be put toward your grade-point total.
 - a. There will be **NO** makeup quizzes. If you must miss a class and there is a quiz on that day, that quiz will be one of your dropped scores.
- D. Homework Assignments
 1. There will be 5 worksheets handed out during the semester. Worksheets will be available at the front and rear entrance to Rieke 103 at least 2 weeks before they are due.
 - a. Worksheets are due at the beginning of the class period on the date indicated on the syllabus and also found on the front of the worksheet.
 - b. Worksheets will not be accepted late. If you will be late to class on the day the worksheet is due, please go to Rieke 254 and place your worksheet in the BIOL206 wooden box outside Dr. Dolan's office before coming to the lecture hall.
 - c. Worksheets may be turned in earlier than the due date by placing them in the BIOL206 wooden box outside Dr. Dolan's office.

IV. **Laboratory Information**

- A. Attendance and participation are **mandatory**. If a scheduled laboratory session must be missed, the student should try to attend an alternate lab session that week. In any case, the lab instructor should be notified via email if a student cannot attend his/her scheduled laboratory session.
 1. A record of perfect laboratory attendance will earn a student 10 bonus points.
 - a. These 10 points will be added to the student's cumulative grade-point total.
- B. Laboratory quizzes will be administered at the start of the laboratory period. Make sure that you are on time for laboratory.
 1. Dates of lab quizzes can be found on the laboratory schedule.
 2. There will be no make-up lab quizzes. The lowest lab quiz score will be dropped.
- C. **Read** the lab exercises **before** you come to **lab**. Pre-reading is beneficial for 2 reasons:
 1. The familiarization will make the actual laboratory session run more efficiently.
 2. Prior reading should yield a higher score on the lab quiz.
- D. Remember to bring your BDS laboratory manual to lab with you.
- E. Most laboratory exercises will include a data report form.
 1. Most of the laboratory data report forms can be completed during the laboratory period and turned in at the end of the period.
 - a. Students have until 12:30 p.m. the day following lab period to turn in lab reports.
 2. These data report forms will be worth approximately 10 points each.

V. Grading Scale:

- A. Final grade is based on the percentage score attained at the end of the semester.
1. Percentage score is calculated by dividing total earned points by the total possible points.

GRADE	Percentage
A	92 - 100
A ⁻	90 - 91.99
B ⁺	88 - 89.99
B	82 - 87.99
B ⁻	80 - 81.99
C ⁺	78 - 79.99
C	72 - 77.8
C ⁻	70 - 71.99
D ⁺	68 - 69.99
D	60 - 67.99
E	< 60

VI. Determination of Final Grade

- A. The final grade for the course is determined based on the percentage you achieve out of the possible total points (~ 1150 points). As shown in the table above, if you have a 90% or better, you **will** receive an A (A or A⁻) for the course. If you achieve an 80% - 89%, you **will** receive **at least** a B (B⁻, B, or B⁺). A 70 % - 79% guarantees you **at least** a C and so on.
- B. The final exam is comprehensive and as such, will provide an additional level of input into your final grade, aside from its contribution to your cumulative point-total. A **"strong performance"** on the final has the possibility of raising your final grade by one letter.
1. See the chart below for clarification.
 - a. A dash in a table cell indicates that the final grade will be determined by the cumulative point total.

Course Grade just prior to Final Exam →	A	B	C	D	E
Grade on Final Exam ↓					
	Grade for BIOL206 will be:				
A	A	A	B	C	D
B	-	B	B	C	D
C	-	-	C	C	D
D	-	-	-	D	D
E	-	-	-	-	E

VII. Course Policies

A. Attendance

1. Lecture attendance is highly recommended. While lecture attendance is not mandatory, it is expected that students will not miss class periods except for emergencies.
2. Professor Dolan does take note of students that repeatedly miss the lecture period.
3. The student is fully responsible for all material covered during a lecture period. This includes announcements and changes to the course schedule, assignments, or syllabus. It also includes any printed material handed out during the lecture period.
4. In the event that a lecture period is missed, it is the student's responsibility to **obtain all pertinent information from another student** in the class without delay.

B. Sakai

1. Professor Dolan will be utilizing the Sakai platform to share course-related information during the semester.
2. Pertinent lecture notes will be available the day prior to the class period. Students are encouraged to print these notes and read them the night before the lecture to facilitate note-taking during the class period.
3. It is expected that all students will have an e-mail address registered on Sakai so that Professor Dolan can easily reach all members of the class regarding notes, assignments, etc.
4. Students should get in the habit of checking Sakai on a daily basis to see if anything has posted. An announcement on the BIOL206 opening screen of Sakai will alert the student if new material has been added and provide the location of that new material.
5. Students can check their grades through Sakai.
6. Study questions will be posted on Sakai. Even though written answers will not be collected and graded, it is important to be able to answer the study questions, as exam material often comes directly from these study questions.

C. To show respect to student peers and the instructor, it is requested that all cell phones and audible beepers be turned off during the class period.

1. In addition, students should arrive to class on time. If you must arrive late, enter quietly through the back doors of the lecture hall and take a seat towards the rear.

D. Appropriate academic conduct is expected of all students. It is the responsibility of the student to read, be familiar with, and adhere to all information in the PLU Student Handbook.

E. Cheating in BIOL206 will not be tolerated. It is not fair to the honest students. Please refer to <http://www.plu.edu/academics/integ.html> for the official PLU Academic Integrity Policy.

1. **Pay particular attention to the "Penalties:" section.**

F. Students fulfilling the BIOL205 prerequisite for this course from any college or university other than PLU should meet with the instructor during the first week of classes to confirm that the appropriate prerequisites have been met.

G. **Bring a calculator to all lecture periods and exams**

1. This is especially important for exams as there may be physiological math problems.

H. Final Exam will be taken Monday, 05/19/2008, 1:00 - 3:00 p.m.

VIII. Special Needs

A. If you possess a special need that requires a course adaptation or accommodation, please inform Professor Dolan of the situation as soon as possible.

B. If you qualify for course adaptations or special accommodations under the Americans with Disabilities Act, it is your responsibility to contact the Director of Services for Students with Disabilities (Ruth Tweeten, 253-535- 7206) and provide the appropriate documentation.

1. Check out the following URL for further information
 - a. <http://www.plu.edu/~dss/>

- C. If you have already documented a disability or other condition which would qualify for special accommodations, or if you have emergency medical information that the instructor should know about, please contact Dr. Dolan as soon as possible.
- D. Please also notify the instructor if you need special arrangements in case the building must be evacuated.

IX. Final Exam Information

- A. Material from past units (i.e. the comprehensive portion) will comprise approximately 100 points of the final exam.
- B. The **comprehensive** portion of the exam is primarily physiology-oriented questions/diagrams rather than straight anatomy questions/diagrams.
- C. The format of the final exam will be, for the most part, similar to what you have encountered on the previous 3 lecture exams. There will however be one full page of "**short answer**" questions.
- D. Following is a list of important concepts you may want to key in on as you study for the comprehensive portion of the final exam. Do not, however, exclude other concepts you believe are equally important.

Ventilation problems: dead space, tidal volume, frequency relationships	Blood pressure and its functional interrelationships with cardiac output, peripheral resistance, and hemodynamics
Sympathetic versus parasympathetic stimulation	Homeostatic mechanisms
Oxyhemoglobin dissociation curve	A good grasp of body fluid compartments
Mechanism of gas exchange in lungs & tissue	Functional processes of urine formation
Reference values for common physiological parameters	Bicarbonate Buffer Equation
Cardiac Output - stroke volume/heart rate relationships	Frank Starling Relationship
Glossary terms we have covered in class are fair game	Blood Pressure regulation
General positive & negative feedback mechanisms	Mechanisms of gas transport in blood
Factors that regulate and alter urine volume & composition	Factors that regulate and alter urine volume and composition
Hydrostatic versus osmotic pressure	Pulmonary air volumes & capacities

X. Miscellaneous Items

Lecture Schedule

DATE	LECTURE TOPIC	CHAPTER	NOTES
Fri Feb 08	Introduction, Control Systems	1	
Mon Feb 11 Wed Feb 13 Fri Feb 15	Blood Blood Heart Anatomy	19 19 20	
Mon Feb 18 Wed Feb 20 Fri Feb 22	<i>President's Day Holiday - no class</i> Heart Physiology Heart Physiology	 20 20	
Mon Feb 25 Wed Feb 27 Fri Feb 29	Vascular System Anatomy Cardiovascular Physiology Cardiovascular Physiology	21 21 21	Review Session, Sunday, 03/02/08 6:30 p.m. WS due 02/29/08
Mon Mar 03 Wed Mar 05 Fri Mar 07	Examination 1 Respiratory System - Anatomy Respiratory System - Anatomy	 23 23	
Mon Mar 10 Wed Mar 12 Fri Mar 14	Respiratory System - Mechanics Respiratory System - Gas Exchange Respiratory System - Regulation	23 23 23	
Mon Mar 17 Wed Mar 19 Fri Mar 21	Body Defense Mechanisms Immune System <i>Easter Break - no class</i>	22 22	WS due 03/19/08
Mar 24 - 28	<i>Spring Break - no class</i>		
Mon Mar 31 Wed Apr 02 Fri Apr 04	Digestive System - Anatomy Digestive Organs - Functional Anatomy Digestive Organs - Functional Anatomy	24 24 24	Review Session, Sunday, 04/06/08 6:30 p.m.
Mon Apr 07 Wed Apr 09 Fri Apr 11	Examination 2 Regulation of Digestion Cellular Metabolism	 24 25	WS due 04/11/08
Mon Apr 14 Wed Apr 16 Fri Apr 18	Cellular Metabolism Temperature Regulation Renal System - Anatomy	25 25 26	
Mon Apr 21 Wed Apr 23 Fri Apr 25	Renal - Glomerular Filtration Fluid Regulation Ion Regulation	26 27 27	Review Session, Sunday, 04/27/08 6:30 p.m.
Mon Apr 28 Wed Apr 30 Fri May 02	Examination 3 pH Regulation Reproductive Organs - Basics	 27 28	WS due 05/02/08
Mon May 05 Wed May 07 Fri May 09	Gametogenesis Fertilization & Early Development Male Hormonal Regulation	28 29 28	Also see pages 90-98
Mon May 12 Wed May 14 Fri May 16	Female Reproductive Cycle Female Hormonal Regulation Jeopardy Game (good final exam review)	28 28	WS due 05/16/08
Mon May 19	Final Exam, Mon 1:00 - 3:00 p.m.	Review Session, Sunday, 05/18/08 6:30	

BIOL206 Lab Schedule - Spring 2008

Instructors:

Michelle Behrens (Rieke 159)/Patty Dolan (Rieke 254)

DATE	LABORATORY TOPIC	DATA REPORTS & QUIZZES	BDS EXERCISE(S)
Feb 12-14	Histology	10-pt online quiz to be taken by end of lab	Exercise 1
Feb 19-21	Heart Anatomy Heart Sounds	Data Report 1 (Q1)	Exercises 2, 3
Feb 26- Feb 28	EKG Prep Vascular Anatomy I	(Q2)	Exercises 4, 5
Mar 4-6	EKG Interpretation	Data Report 2 (Q3)	Exercise 4
Mar 11-13	Vascular Anatomy II Measurement of Blood Pressure & Cardiac Rate	Data Report 3 (Q4)	Exercises 5, 6
Mar 18-20	Respiratory Anatomy Respiratory Physiology	Data Report 4 (Q5)	Exercises 8, 9
Mar 25-27	<i>Spring Break - no class</i>		
Apr 1-3	Blood	Data Report 5 (Q6)	Exercise 7
Apr 8-10	Digestive Anatomy Properties of Digestive Enzymes	Data Report 6 (Q7)	Exercises 10, 11
Apr 15-17	Urogenital Anatomy Review period for upcoming laboratory practical	(Q8)	Exercise 12
Apr 22-24	Urinalysis & pH Measurements	Data Report 7 (Q9)	Exercises 13, 14
Apr 29 - May 1	Laboratory Practical Exam	All students will take lab exam 4/29/08	Sign up on Sakai for specific exam time
May 6-8	Meiosis and Genetics Sea Urchin Fertilization	Data Reports 8 & 9 (Q10)	Exercises 15, 16
May 13-15	Human Genetics	Data Report 10 (Q11)	Exercise 17
<p>Laboratory data reports will be accepted for full credit through 12:30 p.m. the day immediately following lab period. A report turned in after this deadline will only be credited with 50% of the earned points. (Q) denotes a quiz during the first 5 min of lab period. The lowest 5-point lab quiz will be dropped.</p>			