Biology 081: Human Physiology (5 Units)
General Information
Fall 2019

INSTRUCTOR: Dr. Tara Thiemann Email: tthiemann@pacific.edu Phone: (209) 946-2182 Office: BIOBLG 221 Office Hours: WR 2:00-3:00 Q&A: M 4:30-5:30	**Lecture Section 01** MWF 11:00-12:15 BIOBLG 144	**Lecture Section 02** MWF 12:30-1:45pm BIOBLG 144
INSTRUCTOR: Dr. Jane Khudyakov Email: jkhudyakov@pacific.edu Phone: (209) 932-3018 Office: BIOBLG 228 Office Hours: M 4:30-5:30 Q&A: W 4:30-5:30	**Lecture Section 03** TR 8:00-9:45 BIOBLG 101	

Labs MTWR 2-5pm & 5-8pm – BIOBLG 131
TEACHING ASSISTANTS/LAB INSTRUCTORS:

Amy Lagorio	alagorio@pacific.edu
Jerene Pfeiffer	jpfeiffer@pacific.edu
Anna Donaldson	adonaldson@pacific.edu
Elizabeth Piotrowski	epiotrowski@pacific.edu

REQUIRED TEXT: *Vander's Human Physiology: The Mechanisms of Body Function*, 15th edition, 2015. Widmaier, Raff, and Strang. McGraw Hill. ISBN: 978-1259294099. (The 13/14th ed. are very similar to the current one, but if you choose to use them, you will be responsible for working around any differences.)

COURSE DESCRIPTION: This course is a lecture- and laboratory-based review of the functions of the major organ systems of vertebrates with emphasis on the human body. Lab exercises demonstrate basic physiological processes in the human body and emphasize techniques of instrumental data acquisition and data presentation. Credit will not be given if a student has taken BIOL 111. Prerequisites: BIOL 061 and either CHEM 023 or CHEM 025. Recommended: one semester of genetics. (General Catalog 2017-2018).

WHAT TO EXPECT? This course will be INTERACTIVE. I will expect you to participate – ask questions, answer questions, and take part in discussions. There will be many opportunities to "chat with your neighbor". This will give you a chance to work through concepts on your own and practice explaining ideas.

PREFERRED PRONOUN: Knowing and applying the names and pronouns that students use is a crucial part of developing a productive learning environment that fosters safety, inclusion, personal dignity, and a sense of belonging across campus. Please let me know your preferred name and pronoun anytime throughout the semester.

STUDENT LEARNING OUTCOMES: In some science classes, memorization of an encyclopedia of information is expected. In other science courses, facts are minimal and you are taught theories. In this class, we will attempt to strike a balance between these extremes. On exams you will also be challenged to extend concepts to questions not specifically addressed in class; these exam questions will test your critical thinking skills. By the end of this class, your goal is to have an adequate understanding of the basics of human physiology such that you can assimilate and evaluate information related to this subject.

After completing this course, students will be able to:
1. Explain the normal functions and regulation of the major organ systems, organs and their structures, as would be observed in healthy individuals.
2. Describe some common human diseases and disorders experienced in modern life, and explain their symptoms and underlying causation.
3. Apply common and standard medical tools, including simple instruments and computer applications, to measure, analyze, and interpret physiological signals that are relevant to assessing an individual's wellness.
4. Analyze acquired physiological data and present the results in a clear and professional manner.
5. Communicate effectively with superiors, colleagues and laypersons, in both spoken and written forms on the subject of physiology.

These learning objectives align with the following **University-wide learning objectives**: Major Field Competence, Critical and Creative Thinking, Communication

LEARNING DISABILITIES: If you are a student with a disability, who requires accommodations, please contact Mr. Daniel Nuss, Coordinator of the Office of Services for Students with Disabilities in McCaffrey, room 137 ((209)946-2879; SSD@pacific.edu; www.pacific.edu/disabilities), for information on how to obtain an Accommodation Request Letter.

3-Step Accommodation Process:
1. Student meets with the SSD Director and provides documentation and completes registration.
2. Student requests accommodation(s) each semester by completing the Request for Accommodations Form.
3. Student arranges to meet with professors to discuss the accommodation(s) and to sign the Accommodation Request Letter

In order to arrange special accommodations in this course, you should notify your lecture professor and your laboratory instructor within the first two weeks of the course. If you receive accommodations later in the semester, let your instructor(s) know as soon as possible.

NOTIFICATION OF COURSE FEES: Human Physiology (BIOL 081) is a laboratory course. In order to help cover the cost of operating this lab, each student who enrolls in BIOL 081 is automatically charged a $180 lab fee. The lab fee is billed to each student's account through the Registrar's Office.

HONOR CODE: The Honor Code at the University of the Pacific calls upon each student to exhibit a high degree of maturity, responsibility, and personal integrity.

Students are expected to:
- act honestly in all matters
- actively encourage academic integrity
- discourage any form of cheating or dishonesty by others
- inform the instructor and appropriate university administrator if the student has a reasonable and good faith belief and substantial evidence that a violation of the Academic Honesty Policy has occurred.

Violations will be referred to and investigated by the Office of Student Conduct and Community Standards. If you are found responsible, it will be documented as part of your permanent academic record. You may receive a range of penalties: a score of 0 for the assignment/exam; a reduction of 10% of the final course grade; **most likely, failure of the course**; and in some cases, suspension or dismissal from the University.

Note: The full text of the University's Academic Honesty Policy can be found in the Tiger Lore Student Handbook (http://web.pacific.edu/x3957.xml).

ATTENDANCE: In this course, lecture attendance is expected but not required. You will find that over 95% of all exam questions come from lecture material, so I strongly encourage you to attend all lectures. This material is not just what is written on the slides, **but also what I say**. You should take thorough notes in lecture.

Laboratory attendance is mandatory: One unexcused absence will result in a 2% reduction in your final course grade. Two unexcused absences will result in a 10% reduction in your final course grade. Three unexcused lab absences will result in an automatic course grade of F.

EXCUSED ABSENCES IN QUIZZES AND EXAMS: Students who must miss exams/quizzes to participate in university-sanctioned events or religious holidays must notify the instructor in writing of all scheduled absences within two weeks of the start of the semester, or within three days of the initial scheduling of the event. Absences in evaluations due to illness must be informed to the instructor by email or phone within 48 hours. Such absences have to be documented by the Pacific Health Center or the student's personal doctor. There will be no make-up evaluations. If a student misses a lab exam with excused absences, the score of the missed evaluation will equal to the score (by percentage) of the other exam(s). If lecture exams are missed with excused absences, their grade will be replaced by the grade obtained in the final exam. **Exams missed due to an unexcused absence will result in a zero for that assignment**.

ASSESSMENT: The evaluations are designed supposing that students read all the assigned book sections, attend all classes, take notes and attend all labs. Students will be tested on all the materials covered in lecture and lab (present in the book or not), but only on the book materials that are actually covered.

Copies of your work in this course may be retained by the Department of Biological Sciences to assess how the learning objectives of the course are being met.

GRADING: No letter grades will be assigned until the end of the course. There is rarely a significant curve in this course but, if there is a curve, it will never be more difficult than the standard grade scale (see below). Errors in grading of exams and assignments must be brought to the attention of the instructor within one week after the work is returned to the class.

Evaluation	Percent of Grade
Lecture Participation/Assignments	5%
Daily Lecture Quizzes (~35 total; lowest 5 will drop)	7.5%
Exam 1	10%
Exam 2	12.5%
Exam 3	12.5%
Final Exam	22.5%
Lab Participation	2%
Lab Reports (12)	5%
Lab Quizzes/Pre-Lab Assignments (~10)	3%
Lab Exam 1	10%
Lab Exam 2	10%

The course score will be converted into the course grade using the table below:

Score	Grade	Score	Grade	Score	Grade
93-100	A	80-82	B-	67-69	D+
90-92	A-	77-79	C+	60-66	D
87-89	B+	73-76	C	< 60	F
83-86	B	70-72	C-		

FINAL EXAM SCHEDULE POLICY: Students must take their final exams on the scheduled day and time. Exceptions to the policy may only be granted by the Senior Associate Dean of the College and are granted only for personal emergencies such as a death in the family.

Biology 081 Tentative Lecture & Laboratory Schedule - Fall 2019

(any changes will be announced during lecture or laboratory)

Week	Date	Topic Description	Topic #	Chapters	Lab Schedule
1	26-Aug	Introduction; Study Cycle	Topic 01	2.3-2.4; 3C-3D	1 - Scientific Data (bring your laptop if you have one) DUE Sept 2 11:59PM
	28-Aug	Biomolecules			
	30-Aug	Biomolecules; Energy Metabolism	Topic 02	3E	
2	**2-Sep**	**NO CLASS - Labor Day**			2 - SimBio Cellular Resp (do lab at home; you may work together, but everyone needs to submit graded questions)
	4-Sep	Energy Metabolism			
	6-Sep	Intermediary Metabolism (Last Day to ADD/DROP)	Topic 03	3E	
3	9-Sep	Movement of Molecules	Topic 04	4	3- Cell Tonicity
	11-Sep	Homeostasis	Topic 05	1	
	13-Sep	Homeostasis		5	
4	16-Sep	Chemical Messengers; Endocrine System	Topic 06/07	11	4 - Endocrine
	18-Sep	**Exam 1 - through Homeostasis**			
	20-Sep	Endocrine System			
5	23-Sep	Endocrine System			5 - SimBio Action Potentials (bring your laptop if you have one)
	25-Sep	Nervous System	Topic 08	6	
	27-Sep	Nervous System			
6	30-Sep	Nervous System			6- Intro to BioPac & Brain Waves
	2-Oct	Sensory Mechanisms	Topic 09	7	
	4-Oct	**NO CLASS - Fall Student Break**			
7	7-Oct	Sensory Mechanisms			**Lab Exam 1 (Labs 1-6)**
	9-Oct	Sensory Mechanisms			
	11-Oct	Sensory Mechanisms			
8	14-Oct	Skeletal Muscle	Topic 10	9A	7- Sensory
	16-Oct	**EXAM 2 - through Sensory**			
	18-Oct	Skeletal Muscle			
9	21-Oct	Skeletal Muscle			8 - Muscle Control & Fatigue
	23-Oct	Smooth & Cardiac Muscle		9B	
	25-Oct	Cardiovascular System	Topic 11	12	
10	28-Oct	Cardiovascular System			9 - Monitoring the Heart
	30-Oct	Cardiovascular (10/31 Last Day to WITHDRAW)			
	1-Nov	Respiratory System	Topic 12	13	
11	4-Nov	Respiratory System			10 - Blood Pressure & Breathing
	6-Nov	Repiratory System			
	8-Nov	Urinary System	Topic 13	14	
12	11-Nov	Urinary System			11 - Kidney
	13-Nov	**EXAM 3 - through Respiratory**			
	15-Nov	Urinary System			
13	18-Nov	Digestive System	Topic 14	15	12- Glucose
	20-Nov	Digestive System			
	22-Nov	Digestive System			
14	25-Nov	Regulation of Metabolism		16A	**NO LAB**
	27-Nov	**NO CLASS - Thanksgiving Break**			
	29-Nov	**NO CLASS - Thanksgiving Break**			
15	2-Dec	Reproduction	Topic 15	17	**LAB EXAM 2 (Labs 7-12)**
	4-Dec	Reproduction			
	6-Dec	Reproduction			
Mon	**9-Dec**	**Final Exam 8:00-11:00AM for MWF 11:00-12:15 Thiemann Section 01**			
Tues	**10-Dec**	**Final Exam 8:00-11:00AM for TR 8:00-9:45 Khudyakov Section 03**			
Wed	**11-Dec**	**Final Exam 12:00-3:00PM for MWF 12:30-1:45 Thiemann Section 02**			