

APPLIED HUMAN PHYSIOLOGY W/ LAB

APK 2105C ~ 4 CREDITS ~ SUMMER C 2020

UNIVERSITY OF FLORIDA ONLINE

INSTRUCTOR:

Joslyn Ahlgren, Ph.D, C-EP

Office: FLG 108

Office Phone: 352-294-1728

Email: jahlgren@ufl.edu

Preferred Method of Contact: CANVAS email

OFFICE HOURS:

Weekly virtual office hours will be posted in CANVAS

MEETING TIME/LOCATION:

This is a fully online course, so there are not physical meetings required. There are, however, plenty of opportunities to meet with the course instructor and other students virtually.

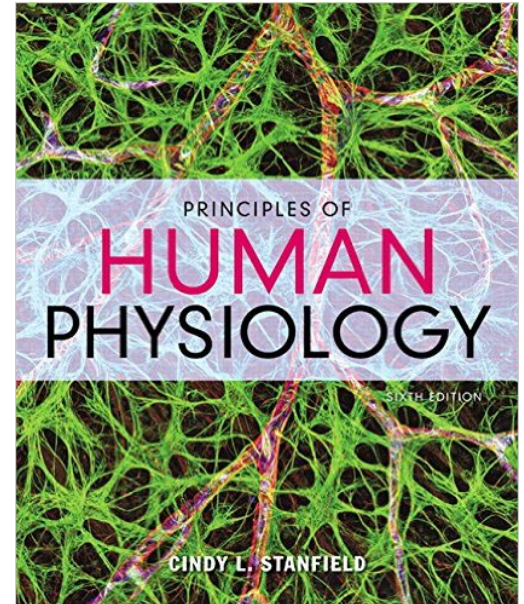
COURSE DESCRIPTION: This physiology course will introduce students to the functions of the human body at the cellular, tissue, organ, systemic, and organismal levels with heavy emphasis on mechanisms of action.

PREREQUISITE KNOWLEDGE AND SKILLS: Sophomore, Junior, or Senior status. Any previous experiences in the following areas will be *helpful* to students: medical terminology, anatomy, physics, chemistry, and/or biology. To be clear: you *do not need* to have taken any of these courses to be successful in this course.

REQUIRED AND RECOMMENDED MATERIALS: For this course, students MUST access two resources: (1) the textbook, and (2) MasteringA&P website (where lab modules will be completed). Options regarding how to gain access to these required course materials are described below.

Textbook: Principles of Human Physiology by Cindy L. Stanfield, 6th edition. Pearson.

Option A (recommended especially to students with financial aid): Students will have the choice to use UF's All Access program. Once classes begin, students can "Opt-In" to MasteringA&P access through a link provided in CANVAS for a reduced price and pay for these materials through their UF student account. This option gives students access to an e-version of the textbook AND access to MasteringA&P. To do this, log into your CANVAS account and navigate to the APK 2105c course homepage. On the left-hand side of the window, select My Lab and Mastering—then follow the prompts accordingly. *Detailed instructions will also be posted in CANVAS.*



Option B: Students who do not choose to participate in UF's All Access program can purchase a MasteringA&P access code at the UF Bookstore—this comes with the eText. There will also be a discounted, loose-leaf print version of the textbook available at the UF Bookstore for students who would like an additional printed resource for the course. Also, a textbook is available at Marston Science Library here on campus at the reserve desk.

COURSE FORMAT: This is a 14-week, fully online course with both lecture and lab components. Lectures will be in the form of pre-recorded videos. Students are encouraged to read the text prior to watching video lectures and take good notes while watching video lectures. Lab modules will be completed through MasteringA&P within your CANVAS course shell. Students will participate in simulations of physiological experiments which facilitate data collection and analysis. Students will submit a PDF document of the data collected during these simulations and answer a set of essay questions following each lab module to demonstrate completion of the labs.

COURSE LEARNING OBJECTIVES: Biological science courses provide instruction in the basic concepts, theories and terms of the scientific method in the context of the life sciences. Courses focus on major scientific developments and their impacts on society, science and the environment, and the relevant processes that govern biological systems. Students will formulate empirically-testable hypotheses derived from the study of living things, apply logical reasoning skills through scientific criticism and argument, and apply techniques of discovery and critical thinking to evaluate outcomes of experiments. The following table describes the UF General Education student learning

outcomes (SLOs) and the specific learning objectives for APK 2105c. By the end of this course, students should be able to:

Gen Ed SLOs	APK 2105c Course Goals	Assessment Method
Content: Demonstrate competence in the terminology, concepts, methodologies and theories used within the discipline.	<ul style="list-style-type: none"> • Describe the basic structures as well as the basic and more complex functions of the cell, the endocrine, nervous, muscular, cardiovascular, respiratory, and renal systems • Name and give examples of key physiological themes and basic regulatory mechanisms for sustaining life/health (e.g. homeostasis, negative and positive feedback) • Explain how major systems of the body are integrated and how these interactions influence homeostasis 	<ul style="list-style-type: none"> • Midterm exams • Lab essay questions • Mastering activities • Mastering homework
Communication: Communicate knowledge, ideas, and reasoning clearly and effectively in written or oral forms appropriate to the discipline.	<ul style="list-style-type: none"> • Use correct anatomical, physiological, scientific, and medical terminology to describe and explain physiological phenomena, experiments used to study such phenomena, and how disease or injury impacts those processes 	<ul style="list-style-type: none"> • Online lab module essay questions • Engagement activities – variable
Critical Thinking: Analyze information carefully and logically from multiple perspectives, using discipline specific methods, and develop reasoned solutions to problems.	<ul style="list-style-type: none"> • Predict how perturbations (e.g., disease, experimental manipulations) will alter physiological function and identify the mechanisms of action involved • Generate and interpret various graphical representations of physiological data 	<ul style="list-style-type: none"> • Midterm exams • Lab essay questions • Mastering activities

COURSE AND UNIVERSITY POLICIES:

ATTENDANCE POLICY: Because this is 100% online, “attendance” in the traditional sense (being somewhere at a given time) is not part of this course. However, 5% of your grade involves demonstrating an appropriate level of “engagement” – interacting with your peers and/or instructor throughout the term.

PERSONAL CONDUCT POLICY: Students are expected to exhibit behaviors that reflect highly upon themselves and our University:

- Read and refer to the syllabus
- Arrive to virtual meetings on time (a few minutes early)
- Show respect for the course instructor and peers through politeness and use of proper titles as applicable (e.g., “Dr. Ahlgren” or “Doc. A”)

- Use of professional, courteous standards for all emails and discussions:
 - Descriptive subject line
 - Address the reader using proper title and name spelling
 - Body of the email should be concise but have sufficient detail
 - Give a respectful salutation (e.g., thank you, sincerely, respectfully)
 - No textspeak (e.g., OMG, WTH, IMO)
- Adherence to the UF Student Honor Code:
 - <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>
 - Honor code violations of any kind will not be tolerated and sanctions will be determined by the course instructor for first-time violators
 - Any use, access, or handling of technology or unapproved resources during an exam will result in a zero **and** potential failure of the course
 - All allegations, regardless of the severity, will be reported to the Dean of Students Office for University-level documentation and processing
 - *Sharing or posting of Doc. A's lecture videos anywhere is strictly prohibited and will be processed as an Honor Code violation. Students who are aware of such sharing/posting of the lecture videos are obligated to disclose that information to their course instructor.*

EXAM/ASSIGNMENT MAKE-UP POLICY: Make-up exams/assignments will be given at the discretion of the instructor. To schedule a make-up, please fill out the **make-up request form** posted in CANVAS and email it to your course instructor. Documentation will be required. Unexcused missed exams/assignments will result in a zero (this includes contacting the instructor **after** the due date if you are ill). You are absolutely not permitted a make-up for personal travel/vacations, so please make your travel arrangements accordingly. If you have a serious emergency or life event, please contact the Dean of Students Office (www.dso.ufl.edu) and they will contact your instructor so that you do not have to provide documentation of the emergency in order to get a make-up. Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found in the online catalog at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

ACCOMMODATING STUDENTS WITH DISABILITIES: Students requesting accommodation for disabilities must first register with the Dean of Students Office (<http://www.dso.ufl.edu/drc/>). The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking the quizzes or exams. Accommodations are not retroactive, therefore, students should contact the DSO as soon as possible in the term for which they are seeking accommodations.

Students registered with the DRC: Because this is a fully online course, your instructor should be able to modify your exam times (or other course conditions/environment) to

accommodate your needs. To make this more manageable, please provide your accommodations letter to your instructor within the first week of the semester.

COURSE EVALUATIONS: Students in this class are participating in GatorEvals. This evaluation system is designed to be more informative to instructors so that teaching effectiveness is enhanced and to be more seamlessly linked to UF's CANVAS learning management system. Students can complete their evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Thank you for serving as a partner in this important effort.

GETTING HELP:

HEALTH AND WELLNESS

- U Matter, We Care: If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575
- Counseling and Wellness Center: <https://counseling.ufl.edu/>, 352-392-1575
- Sexual Assault Recovery Services (SARS) - Student Health Care Center, 392-1161
- University Police Department, 392-1111 (or 9-1-1 for emergencies)
<http://www.police.ufl.edu/>

ACADEMIC RESOURCES

- E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu. <https://lss.at.ufl.edu/help.shtml>
- Career Connections Center, Reitz Union, 392-1601. Career assistance and counseling. <https://career.ufl.edu/>
- Library Support, <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with respect to using the libraries or finding resources.
- Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. <http://teachingcenter.ufl.edu/>
- Student Complaints On-Campus: <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/> On-Line Students Complaints: <http://distance.ufl.edu/student-complaint-process/>

GRADING:

The following table outlines the components of the course on which you will be evaluated.

Evaluation Components	% of Total Grade
Exams (4)	40%
MasteringA&P Homework (one per chapter)	20%
MasteringA&P Labs (10)	20%
MasteringA&P Activities	15%
Engagement	5%

Exams – Each of the four exams will consist of 30-40 multiple choice, multiple response, matching, and true/false questions. Students are not permitted access to any kind of materials or notes during these exams and they will require both lock-down browser as well as an online exam proctor (details explained in CANVAS). Exam questions are generated by the course instructor and the majority of focus should be given to the lecture notes when studying. Each exam will need to be completed within a 24-hour window (see dates in schedule posted at end of syllabus). Once accessed, you will be given 60 minutes to complete the exam.

Homework – Homework problems are multiple choice, true/false, fill in the blank, and some matching. These questions are specific to the textbook, so that should be your primary resource for answering those questions. For the fill in the blank questions, spelling and proper tense/plurality of the word counts. For example, if a question asked for the name of the cells which carry oxygen, the correct response would be erythrocytes (plural). These questions are NOT intended to be used as the primary study tool for preparing for the exams. The function of the homework questions is to (a) get students more familiar with the textbook, and (b) to get students eased into answering physiology-related questions. Most of these questions are very straight forward and are less challenging than the exams. The following are specific homework grading guidelines to keep in mind:

- You may open and close a homework assignment as many times as you wish until the due date/time.
- You are allowed 2 attempts to get the correct answer to any question other than T/F questions. You are penalized 50% if you miss on the first attempt. You are penalized 100% if you miss on the second attempt. You are penalized 100% if you miss T/F questions on the first attempt.
- You are penalized a small fraction for opening a hint to a question (if one is available).
- *Late submissions of homework will not be accepted.*

MasteringA&P Labs – Your laboratory experiences for this course will be module-based activities found in MasteringA&P. You will be given some background reading with each lab and then asked to perform a step-by-step walk through of several “experiments.” Following these experiments, you will submit the PDF document of your lab showing the data you collected in each module. You will also be asked to provide short essay responses to some questions regarding what happened in the experiments or what you might predict would happen if you changed something in the experiments. It is imperative that you complete all the questions for each lab. Two, three, or four of the responses for each lab will be randomly selected for grading (depending on the lab). However, unanswered questions will automatically be counted as one of the graded questions. **Example 1:** Let’s say there is a lab in which there are six questions to answer and the randomly assigned questions for grading are 5 and 6. If you responded to only questions 1, 2, and 3, you would not receive any points for this lab. **Example 2:** Let’s say there is a lab with four questions and the randomly selected questions for grading are 1 and 2. If you answered both 1 and 2, but did not answer 3 and 4, you would not receive any points for this lab. Lab grading is somewhat subjective since the answers are free-response. Please be as clear and complete with your answers as possible to ensure you earn maximum points for your efforts. *Failure to complete at least nine of the ten labs will result in a whole letter grade penalty.* You will have six hours to complete each lab and accompanying questions; however, these typically do not take longer than 2-3 hours each. Once you open the lab, you can close it and return to complete it, but the timer will not stop...so please plan to complete the lab module and questions in one sitting to avoid being timed out. **Plagiarism has been an issue with lab essay questions in the past and will not be tolerated. Any level of plagiarism will be reported.**

MasteringA&P Activities – Several of the course modules will have activities for you to complete in MasteringA&P, such as interactive flow charts and case studies. In these activities, you will watch a video, perform a matching type of activity, or read some information about a disease. After that, you will be prompted to answer a series of multiple choice questions – similar to the homework. These module activities are intended to help you learn how to appropriately identify and transfer basic physiological concepts to clinical scenarios.

Engagement – It can be challenging to be engaged with the instructor and/or with classmates in a fully online course. However, 5% of your grade is riding on you doing just that. You may select from the following list (or propose alternate mechanisms) to earn engagement points (each is worth 0.5%):

- Post an intro video of yourself to the “Hi, my name is...” discussion board.
- Post 3 clinically applied practice test questions to the “Practice Questions” discussion board.
 - You can only get points for this if another student attempts to answer and you provide feedback AFTER they’ve answered.
 - Your questions cannot be too similar to any other student’s questions.
 - These must be multiple choice with at least four options.

- You may do this once per exam (so, you can earn 2% for just this).
- Attend and participate in virtual office hours (VOH).
 - A schedule will be posted in CANVAS, but feel free to request specific days/times. Your instructor will try to accommodate different time zones if possible.
 - You may do this as many times as you like – no limits on this one.
 - You must PARTICIPATE the whole time...ask questions, answer questions, etc. If you are present, but not participating, no points will be awarded.
- Virtual conference with the course instructor. Request a face-to-face conference using CANVAS conference app to discuss your grade, share a fun story, get clarification on a topic you are struggling with, etc.

Engagement points will be added to the gradebook at the end of the semester and must be completed on or before the last day of classes for summer C. Do not procrastinate these as your course instructor will have more flexibility earlier rather than later in the semester. You are encouraged to keep a log of your participation so you can verify your points with the instructor.

GRADING SCALE: Any discrepancies with points displayed in the gradebook should be pointed out to the instructor before the last day of class. There is no curve for this course and final grades will not be rounded up. See the UF undergraduate catalog web page for information regarding current UF grading policies: <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>. *Any requests for additional extra credit or special exceptions to these grading policies will be interpreted as an honor code violation (i.e., asking for preferential treatment) and will be handled accordingly.*

Minus grades are not assigned for this course. A minimum grade of C is required for all General Education courses, such as this one.

Letter Grade	Percent of Total Points Associated with Each Letter Grade	GPA Impact of Each Letter Grade
A	90.00-100%	4.0
B+	87.00-89.99%	3.33
B	80.00-86.99%	3.0
C+	77.00-79.99%	2.33
C	70.00-76.99%	2.0
D+	67.00-69.99%	1.33
D	60.00-66.99%	1.0
E	0-59.99%	0

WEEKLY COURSE SCHEDULE:

It is HIGHLY recommended that you adhere to the following schedule as closely as possible. You will need to complete all activities for a given week by 11:59pm the Friday of each week. The only exception to this is for the last week of class, in which the assignments are due on Thurs at 11:59pm—to ensure it is completed before the last exam. It is HIGHLY recommended that you approach each week’s course components in the following order:

- First, complete the required reading pages
- Then, watch and take notes on the lecture videos
- After that, complete the activities and homework
- Finally, complete that week’s lab (submit your report and answer the essay questions)

Disclaimer: This table represents current plans and objectives. Any changes to this schedule (or any aspect of the course) will be posted as an announcement in CANVAS.

Week	Date	Topic	Reading	To-Do's
1	May 11 – May 15	Ch. 1 - Intro to Physiology	Sections 1.1-1.2	Homework for each chapter
		Ch. 2 – Cell Structure/Function	Sections 2.1-2.5	
2	May 18 – May 22	Ch. 3 – Cell Metabolism	Sections 3.1-3.6	Mastering Labs & Activities
3	May 25 – May 29	EXAM 1 – Opens Mon May 25 at 5am EST – Closes Tues May 26 at 5am EST		
		Ch. 4 – Membrane Transport	Sections 4.1-4.7	Homework for each chapter
4	Jun 01 – Jun 05	Ch. 5 – Chem Messengers Ch. 6 – Endocrine System	Sections 5.1-5.4 Sections 6.1-6.5	
5	Jun 08 – Jun 12	Ch. 7 – Nerve Cells	Sections 7.1-7.5	
6	Jun 15 – Jun 19	Ch. 8 – Synaptic Transmission	Sections 8.1-8.5	Homework for each chapter
		EXAM 2 – Opens Fri June 19 at 5am EST – Closes Sat June 20 at 5am EST		
7 / 8	Jun 22 – Jul 03	SUMMER BREAK – It is recommended that you use these two weeks to get ahead of schedule if you are unsatisfied with your grade. <i>Otherwise...enjoy the break!</i>		
9	Jul 06 –	Ch. 12 –Muscle Physiology	Sections 12.1-12.5	Homework for

	Jul 10	Ch. 13 – Cardiac Function	Sections 13.1-13.4 (exclude Ionic Basis of Electrical Activity in the Heart), 13.5-13.6	each chapter Mastering Labs & Activities
10	Jul 13 – Jul 17	Ch. 14 – Blood Pressure	Sections 14.1-14.6, 14.8	
11	Jul 20 – Jul 24	EXAM 3 – Opens Mon July 20 at 5am EST – Closes Tues July 16 at 5amEST		
		Ch. 16 – Pulmonary Ventilation	Sections 16.1-16.5	Homework for each chapter Mastering Labs & Activities
12	Jul 27 – Jul 31	Ch. 17 – Gas Exchange	Sections 17.1-17.8	
13	Aug 03 – Aug 07	Ch. 18 – Renal Function	Sections 18.1-18.5 (only the first paragraph of 18.5 and the section titled “Micturition”)	**Due on Thurs for week 14***
14	Aug 10 – Aug 14	Ch. 19 – Fluid/Electrolyte Balance	Sections 19.1-19.3, 19.7	
		EXAM 4 – Opens Fri Aug 14 at 5am EST – Closes Sat Aug 15 at 5amEST		

SUCCESS AND STUDY TIPS:

STUDY TIPS FOR DOC. A's CLASS:

- Read the assigned pages from the text BEFORE you watch a lecture. Do not take notes, underline, highlight, or attempt to memorize anything...JUST READ and enjoy!
- Snow-ball the lecture notes. Begin studying lecture material immediately after the first lecture. Then, after the second lecture, begin your studies with day one lecture material. Continue this all the way up to the exam.
- Engage your classmates. This material is meant to be discussed...and you can't do that well with just yourself. Post questions to the discussion board. Exchange contact information and have a phone conversation. Post cool videos you find regarding related material to the discussion boards. ENGAGE!
- If there is something in the textbook that was NOT in lecture, you are not expected to know it.
- Re-write questions. Taking complex questions and breaking them down to identify exactly what the question is REALLY asking for is very helpful. It is also very helpful to look at incorrect answer choices and identify what makes those choices wrong. Ask yourself, “How could I make that statement correct?” A good place to look for these types of questions is at the end of each chapter – the critical thinking questions.
- Use the heck out of GOOGLE and GOOGLE IMAGES. While studying a given subject, look it up on a search engine and read about disease of that particular system (for clinical applications) or just look at some images of the same type of

graph (for learning to recognize the content in a different form). Both of these approaches can help with application and critical thinking!

SUCCESS TIPS FOR DOC. A's CLASS:

- Do not fall behind. This course moves at a fast pace...and you can easily get overwhelmed if you procrastinate.
- Stay organized. Keep track of all due dates and move through each module in a uniform manner so that you are always aware of what you have done and what is left to be completed.
- Check CANVAS announcements/emails daily...just pretend it is social media for school. Your course instructor will post important and helpful information as announcements.
- Set up your CANVAS notifications so you are notified when announcements are made by the course instructor.
- Have a positive attitude! Approaching the course with a defeatist attitude will hinder your learning and your grade...crack a smile now and then. THIS STUFF IS COOL!

PERSONAL NOTE FROM DOC. A:

I recognize that this is an intense course for many students. In combination with everything else going on in your life, stress may creep in. If you are totally overwhelmed by the stresses of your semester and feel like you just can't handle the pressure, please contact me and/or someone at UF's Counseling and Wellness center (www.counseling.ufl.edu/cwc/). I genuinely care for my students' wellbeing.

It is important that you feel welcome and safe in this class; and that you are comfortable participating in class discussions and communicating with me on any issues related to the class. If your preferred name is not the name listed on the official UF roll, please let me know. I would like to acknowledge your preferred name and pronouns that reflect your identity.

You may also change your "Display Name" in Canvas. Canvas uses the "Display Name" as set in myUFL. The Display Name is what you want people to see in the UF Directory, such as "Ally" instead of "Allison." To update your display name, go to one.ufl.edu, click on the dropdown at the top right, and select "Directory Profile." Click "Edit" on the right of the name panel, uncheck "Use my legal name" under "Display Name," update how you wish your name to be displayed, and click "Submit" at the bottom. This change may take up to 24 hours to appear in Canvas. This does not change your legal name for official UF records.

I look forward to a great semester with you!