

Teacher/Teacher Team:	Dr. Pani
Grade:	12
Date:	08/21/08-25-2023

Lesson Plans should be posted by 3PM each Friday.

#	Planning Question	Teacher/Teacher Team Response
1	Which state standard is your lesson progression addressing?	HAP.LS1: From Molecules to Organisms: Structures and Processes HAP.LS1.3 Describe the organizational levels of the human body and observe patterns in cell types and tissue types across organ systems. Focusing exclusively on the levels of organization portion of this standard. HAP.LS1.4 Use a human model to differentiate the major body cavities and organs located within them. Describe the model using proper anatomical and directional terminology for body regions, planes, and cavities. HAP.LS1.5 Explain homeostasis and describe how it is accomplished through feedback mechanisms that utilize receptors and effectors
2	What scientific concepts or phenomena are embedded in the state standard?	<ol style="list-style-type: none"> 1. Diabetes: Type 1 and Type 2 An important example of negative feedback is the control of blood sugar. After a meal, the small intestine absorbs glucose from digested food. Blood glucose levels rise, insulin is produced by beta cells in the pancreas. Insulin triggers live, muscle, and fat tissue to absorb glucose, where it is stored. As glucose is absorbed, blood glucose levels fall. Once glucose levels drop below a threshold, there is no longer a sufficient stimulus for insulin release, and the beta cells stop releasing insulin. 2. Labor Contractions A good example of positive feedback involves the amplification of labor contractions. The contractions are initiated as the baby moves into position, stretching the cervix beyond its normal position. After birth, the stretching stops and loop is interrupted
3	What teacher knowledge, reminders, and misconceptions are assumed in the standard?	Multicellular organisms have a hierarchical structural organization, in which any one system is made up of numerous parts and is itself a component of the next level. The body is organized into various parts with an increasing level of complexity. The body is divided up into distinct body cavities. The arrangement of organs in these cavities is significant in their function. Feedback mechanisms maintain a living system's internal conditions within certain limits and mediate behaviors, allowing it to remain alive and functional even as

		<p>external conditions change within some range. Outside that range (e.g., at a too high or too low external temperature, with too little food or water available), the organism cannot survive. Feedback mechanisms can encourage (through positive feedback) or discourage (negative feedback) what is going on inside the living system.</p> <p>Misconception(s) • Human organ systems are interrelated. Organ systems are essential for homeostatic maintenance. Organ systems' anatomies directly relate to physiology. • The disruption of homeostatic mechanisms may lead to disease, and if severe enough, death. • Emphasis is on functions at the organism system level such as nutrient uptake, water delivery, and organism movement in response to neural stimuli. An example of an interacting system could be an artery depending on the proper function of elastic tissue and smooth muscle to regulate and deliver the proper amount of blood within the circulatory system.</p>
4	What objective(s) must be taught? In what order? Why?	SWBAT define and describe the anatomy, physiology, directional terms, positional terms, movement terms, abdominopelvic regions and quadrants to comprehend the human body.
5	<p>What is your resource plan for each of the 5 Es of inquiry-based science instruction?</p> <ol style="list-style-type: none"> 1. Engage 2. Explore 3. Explain 	<p>Engage • Homeostasis Video • Directional Terms Video • The Language of Anatomy Explore EMC AA&P Workbook & Laboratory Manual: • Chapter 1, pp. 1-7 • Laboratory Activity 1: Drawing the Abdominopelvic Regions and Quadrants, pp. 8-9 • Laboratory Activity 2: Drawing the Body Cavities, p. 10 Explain • Body System Poster Activity Elaborate • Chapter 1: Related Research p. 19 • Chapter 1: Science and Social Ethics, p. 20 • Chapter 3: Science and Social Ethics, p. 77 Evaluate • Chapter 1: Concept Check, pp. 6, 9, 10, 12, 13, 17, 20 • Chapter 1 Study Guide, pp. 21-27 • Chapter 3 Concept Check, pp. 72, 73, 74, 76, 79, 85, 87, 89, 9</p>

	4. Elaborate 5. Evaluate	
6	What academic language must be taught before and after the explain phase ? How will the academic language be taught and assessed ?	Model the levels of structural organization in a living organism. • Identify the body cavities and the main organs systems contained in each. Use directional terms to describe anatomical structures. • Justify the claim that the importance of an organ system can be determined by the degree of protection the body cavity gives. • Analyze situations and apply the proper anatomical terminology and orientation of parts and regions and apply them to real-life scenarios. • Describe and illustrate evidence to demonstrate the role of both a positive and negative feedback mechanisms in maintaining homeostasis. • Synthesize information from scientific sources to treat broken feedback systems.
7	What is your plan to ensure that assessment of instruction on this standard is not solely characterized by remembering or regurgitating factual information ?	What is the relationship between anatomical structure and physiological function? • How does organization contribute to the proper function of the human body? • How do location and direction contribute to anatomical functions? • Where and when are negative versus positive feedback loops necessary for maintaining homeostasis
8	What literacy concept can be intertwined with instruction on this scientific concept or phenomenon?	Including the content lecture, students will learn dissection of heart, brain, piglets' systems that are similar to human.
9	How will instruction be impacted by the Cross Cutting Concepts and the Science & Engineering Practices?	This is a premed course. This study will help them to prepare for nursing, medicine, pharmacy, pharmacology, and scientific careers.