



Anatomy and Physiology (Course # 2000350 Hons #2000360)

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Quarter	Big Idea	Benchmark Description Honors	Suggested Pacing Days*
First Quarter (39 days)	Introduction to Human Body and Orientation	1 SC.912.N.1.1 , SC.912.N.1.2 Describe and explain what characterizes science and its methods. Review lab safety protocols.	2
		2 LAFS.112.RST.2.4 Determine the meaning of key terms and phrases as they are used in anatomy and physiology.	5
	Chemistry of Life	3 SC.912.L.18.1 , SC.912.L.18.2 , SC.912.LAFS.112.RST.2.42.L.18.3 , SC.912.L.18.4 Describe the basic molecular structures and primary functions of the four major categories of biological macromolecules in the human body.	2
		4 SC.912.L.18.11 , SC.912.L.18.6 , SC.912.L.18.8 The role of enzymes in biochemical reactions and factors that affect enzyme activity in the human body.	2
	Cell Review, Tissues, and Integumentary System	5 SC.912.L.16.10 <i>Cell Review</i> - Describe various cells and cellular processes of the human body.	2
		6 SC.912.L.14.11 Classify the characteristics of epithelial, connective, muscular and nervous tissue.	10
		7 SC.912.L.14.51 , SC.912.L.16.8 Describe the function of the integumentary system and explore the relationship between mutation, cell cycle, and uncontrolled cell growth.	4
	Skeletal System	8 SC.912.L.14.12 , SC.912.L.14.13 Distinguish between bones of the axial skeleton and the appendicular skeleton. Describe the anatomy and histology of bone tissue.	2
		9 SC.912.L.14.14 , SC.912.L.14.15 Identify the major bones of the axial and appendicular Skeleton.	8
Second Quarter (36 days)	Muscular System	10 SC.912.L.14.16 , SC.912.L.14.17 , SC.912.L.14.18 , SC.912.L.14.19 , SC.912.L.14.20 Describe the anatomy and histology of muscle tissue. List the steps involved in the sliding filament of muscle contraction. Describe the signal transmission across a myoneural junction. Identify the major muscles of the human on a model or diagram.	11
	Nervous System and Senses	11 SC.912.L.14.21 , SC.912.L.14.22 , SC.912.L.14.23 , SC.912.L.14.24 Describe the anatomy, histology, and physiology of the central and peripheral nervous systems including parts of a reflex arc, synapse, and signal transmission.	2
		12 SC.912.L.14.25 , SC.912.L.14.26 , SC.912.L.14.27 , SC.912.L.14.28 Identify the major parts and functions of the central nervous system (brain and spinal cord).	5
		13 SC.912.L.14.49 Identify the major functions associated with the sympathetic and parasympathetic nervous systems.	5
		14 SC.912.L.14.50 Describe the structure and function of vertebrate sensory organs.	5
	Blood & Cardiovascular System	15 SC.912.L.14.34 , SC.912.L.14.35 Describe the composition and physiology of blood, including blood typing and transfusion reactions.	4
16 SC.912.L.14.36 , SC.912.L.14.37 , SC.912.L.14.38 , SC.912.L.14.39 , SC.912.L.14.40 Describe the factors affecting blood flow through the cardiovascular system, heart sounds, and hypertension.		8	
Third Quarter (34 days)	Respiratory System	17 SC.912.L.14.43 , SC.912.L.14.44 Describe the physiology of the respiratory system including the mechanisms of ventilation, gas exchange, gas transport, and the mechanisms that control the rate of ventilation.	6
	Digestive & Urinary System	18 SC.912.L.14.45 , SC.912.L.14.46 , SC.912.L.18.2 , SC.912.L.18.3 , SC.912.L.18.4 Describe the physiology of the digestive system, including mechanical digestion, chemical digestion, absorption and the neural and hormonal mechanisms of control.	6
		19 SC.912.L.14.47 , SC.912.L.14.48 Describe the physiology of urine formation by the kidney.	4
	Reproduction & Fetal Development	20 SC.912.L.14.33 Describe the basic anatomy and physiology of the reproductive system.	16
		21 SC.912.L.14.41 , SC.912.L.16.13 Describe fetal circulation and changes that occur to the circulatory system at birth.	10
Fourth Quarter	Endocrine System	22 SC.912.L.14.29 , SC.912.L.14.30 , SC.912.L.14.31 , SC.912.L.14.32 Describe the anatomy and physiology of the endocrine system and compare endocrine and neural controls of physiology.	11



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(27 days)**	Lymphatic & Immune System	23	SC.912.L.14.42, SC.912.L.14.52, SC.912.L.16.8 Describe the anatomy and the physiology of the lymphatic system. Explain the basic functions of the human immune system, including specific and nonspecific immune response, vaccines, and antibiotics.	9
		24	<i>Immunity</i> - Explain the significance of genetic factors, environmental factors, and pathogenic agents to health from the perspectives of both individual and public health	7
	Instructional Review			

*The days provided for each unit/topic is an estimate that may be adjusted by subject-level PLCs based on student achievement data. The recommended days shown are less than the actual days for each quarter to allow for additional time for routines, testing, absences, remediation and outside considerations.

** This does not include the days in May or June due to testing schedules and end of year events.

