



# Goodheart-Willcox Publisher

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Goodheart-Willcox Publisher	
Correlation of <i>INTRODUCTION TO ANATOMY AND PHYSIOLOGY 2E</i> ©2021	
to the FLORIDA 2018-19	
for Health Science Anatomy & Physiology (Course #8417100).	
STANDARD	G-W CORRELATING PAGES
Health Science Core	
01.0 Analyze and interpret an overview of the human body, including organization and chemical process.	12–18, 38, 39
02.0 Apply correct medical terminology relating to body structure and function within a real-world application.	4–11, 19–23, 39
03.0 Evaluate cells and tissues microscopically and macroscopically and relate their specialized functions.	42–79, 87
04.0 Analyze the integumentary system in relation to health and disease.	93–113
05.0 Analyze the skeletal system in relation to health and disease.	120–171
06.0 Analyze the muscular system in relation to health and disease.	172–215
07.0 Analyze the nervous system in relation to health and disease.	216–261
08.0 Analyze the endocrine system in relation to health and disease.	298–337
09.0 Analyze the cardiovascular system in relation to health and disease.	376–461
10.0 Analyze the lymphatic and immune systems in relation to health and disease.	462–507
11.0	338–375

Analyze the respiratory system in relation to health and disease.	
12.0 Analyze the digestive system in relation to health and disease.	508–549
13.0 Analyze the urinary system in relation to health and disease.	550–587
14.0 Analyze the both the male and female reproductive systems in relation to health and disease.	596–610, 620–636
15.0 Identify and explain factors relating to genetics and disease.	50–51, 67, 87, 250–252, 398, 400–403, 483, 496
16.0 Evaluate and apply the principles of disease transmission and control to real-world scenarios.	106, 107, 108, 358–359, 360, 361–362, 364, 493, 621, 624–625
17.0 Demonstrate knowledge of the healthcare delivery system and health occupations.	32–33, 80–81, 114–115, 164–165, 208–209, 254–255, 292–293, 330–331, 368–369, 406–407, 454–455, 500–501, 544–545, 582–583, 630–631
18.0 Demonstrate the ability to communicate and use interpersonal skills effectively.	38–39, 87, 119, 171, 214, 261, 297, 337, 374, 411, 461, 507, 549, 587, 636
19.0 Demonstrate legal and ethical responsibilities.	577
20.0 Demonstrate an understanding of and apply wellness and disease concepts.	510–515
21.0 Recognize and practice safety and security procedures.	27
22.0 Recognize and respond to emergency situations.	249, 437–440, 443–444, 452, 461
23.0 Recognize and practice infection control procedures.	475, 507
24.0 Demonstrate an understanding of information technology applications in healthcare.	261
25.0 Demonstrate employability skills.	32–33
26.0	411, 497, 506, 622–625, 636

Demonstrate knowledge of blood borne diseases, including HIV/AIDS.		
27.0	Apply basic math and science skills.	9–10, 38, 86, 119, 170, 214, 260, 296–297, 336, 374, 410, 460–461, 506, 549, 586, 636, 637, 638–639
<b>Health Science Anatomy &amp; Physiology (Course #8417100)</b>		
<b>01.0 Analyze and interpret an overview of the human body, including organization and chemical process–The student will be able to:</b>		
01.01	Evaluate interrelationships of the basic structural and functional organization of the human body including chemical, cellular, tissue and organ systems.	12–13
01.02	Describe the basic molecular structures and primary functions of the four major categories of biological macromolecules.	42–54
01.03	Examine medical implications of body planes, directional terms, cavities, abdominal regions and quadrants.	5–9
01.04	Discuss the chemical processes that maintain life, including homeostasis, cellular respiration, the role of enzymes as catalysts and the basic concepts of metabolism.	12–18, 55–68
<b>02.0 Apply correct medical terminology relating to body structure and function within a real-world application–The student will be able to:</b>		
02.01	Evaluate and apply anatomical terminology to describe location of parts or areas of the body and to describe the relation of one part to another.	5–9
02.02	Interpret correct medical terminology including roots, prefixes and suffixes to indicate anatomical structures and function.	5, 43, 49, 76, 94, 202, 271, 310, 468, 472, 478, 512, 522, 528, 530, 556, 560, 574, 604
02.03	Extend medical terminology to real-world applications.	101, 155, 200, 245, 268, 279, 289, 320, 357, 395, 442, 492, 536, 571, 620
<b>03.0 Evaluate cells and tissues microscopically and macroscopically and relate their specialized functions–The student will be able to:</b>		
03.01	Discuss and describe cell structure and function in healthy tissue.	55–68
03.02	Discuss and describe cell structure and function in diseased tissue including how	66–67, 77, 479, 485, 489, 492–494, 624, 625–628

	damage to one tissue may impact the function of another tissue.	
03.03	Compare and contrast the four main types of tissue including the interrelationships of tissues.	69–79
03.04	Discuss the location and function of tissues as it relates to homeostasis.	58
<b>04.0 Analyze the integumentary system in relation to health and disease–The student will be able to:</b>		
04.01	Apply medical terminology as related to the integumentary system.	93–113
04.02	Discuss and describe the structure and function of the integumentary system across the lifespan.	97–98
04.03	Demonstrate knowledge of cells and tissues in the integumentary system	94–99
04.04	Identify and analyze common diseases and disorders of the integumentary system including etiology, prevention, pathology, diagnosis and treatment/rehabilitation.	101–112
04.05	Discuss or research health careers related to the integumentary system.	114–115
04.06	Demonstrate knowledge of skills related to the integumentary system which may include infection control and hand washing skills.	108, 475, 493, 507
<b>05.0 Analyze the skeletal system in relation to health and disease–The student will be able to:</b>		
05.01	Apply medical terminology as related to the skeletal system.	120–171
05.02	Discuss and describe the structure and function of the skeletal system across the lifespan.	122–131
05.03	Identify and explain major bone markings and their implications.	123–150
05.04	Identify and explain joints and their implications.	151–154
05.05	Discuss the interrelationship between calcium, hormones, and the skeletal system.	123, 159
05.06	Apply knowledge of cells and tissues in the skeletal system.	123–131

05.07	Identify and analyze common diseases and disorders of the skeletal system including etiology, prevention, pathology, diagnosis and treatment/rehabilitation.	155–163
05.08	Discuss or research health careers related to the skeletal system.	164–165
05.09	Demonstrate knowledge of skills related to the skeletal system which may include range of motion.	141, 150, 154, 163, 167–171
<b>06.0 Analyze the muscular system in relation to health and disease–The student will be able to:</b>		
06.01	Apply medical terminology as related to the muscular system.	172–215
06.02	Discuss and describe the structure and function of the muscular system across the lifespan.	196
06.03	Identify and explain the 3 main types of muscles and their implications.	174–179
06.04	Interpret muscle function by examining attachment to bone.	177–188
06.05	Discuss the interrelationship between calcium, ions, and the muscular system.	182, 201
06.06	Apply knowledge of cells and tissues in the muscular system.	174–179
06.07	List the steps involved in the sliding filament of muscle contraction.	180–188
06.08	Describe signal transmission across a myoneural/neuromuscular junction.	180–182
06.09	Identify and analyze common diseases and disorders of the muscular system including etiology, prevention, pathology, diagnosis and treatment/rehabilitation.	200–207
06.10	Discuss or research health careers related to the muscular system.	208–209
06.11	Demonstrate knowledge of skills related to the muscular system which may include isometric and isotonic contractions.	177–179, 186, 188, 199, 207, 211–215
<b>07.0 Analyze the nervous system in relation to health and disease–The student will be able to:</b>		
07.01	Apply medical terminology as related to the nervous system.	216–261

07.02	Discuss and describe the structure and function of the nervous system across the lifespan.	243
07.03	Identify and explain the interrelatedness of the Central Nervous System (CNS) and Peripheral Nervous System (PNS).	224–244
07.04	Compare and contrast the divisions of the Autonomic Nervous System (ANS).	241–244
07.05	Apply knowledge of cells and tissues in the nervous system.	220–222
07.06	Explain how neurotransmitters help propagate electrical impulses.	224–229
07.07	Describe reflex pathways and their importance.	227, 228
07.08	Identify and analyze common diseases and disorders of the nervous system including etiology, prevention, pathology, diagnosis and treatment/rehabilitation.	245–253
07.09	Discuss or research health careers related to the nervous system.	254–255
07.10	Demonstrate knowledge of skills related to the nervous system which may include recognizing signs and symptoms of a stroke.	229, 237, 244, 253, 257–261, 452
<b>08.0 Analyze the endocrine system in relation to health and disease–The student will be able to:</b>		
08.01	Apply medical terminology as related to the endocrine system.	298–337
08.02	Discuss and describe the structure and function of the endocrine system across the lifespan.	317
08.03	Compare and contrast endocrine and exocrine glands.	300–301
08.04	Compare and contrast negative and positive feedback loops.	15–16, 303, 304
08.05	Evaluate the relationship between the endocrine system and homeostasis in health and disease.	12–16, 304–305
08.06	Apply knowledge of cells and tissues in the endocrine system.	307–319

08.07	Identify and analyze common diseases and disorders of the endocrine system including etiology, prevention, pathology, diagnosis and treatment/rehabilitation.	320–329
08.08	Discuss or research health careers related to the endocrine system.	330–331
08.09	Demonstrate knowledge of skills related to the endocrine system which may include recognizing the signs and symptoms of low blood sugar.	306, 319, 329, 336–337
<b>09.0 Analyze the cardiovascular/circulatory system in relation to health and disease–The student will be able to:</b>		
09.01	Apply medical terminology as related to the cardiovascular system.	412–461
09.02	Discuss and describe the structure and function of the cardiovascular system across the lifespan.	388–389, 420
09.03	Demonstrate knowledge of major blood vessels.	427–436
09.04	Compare and contrast the structure and function of arteries, veins, and capillaries.	427–430
09.05	Analyze the interdependence between systemic and pulmonary circulation.	430–431
09.06	Design a map or flow chart depicting the normal pathway of blood flow through the heart.	417–418, 422
09.07	Design a map or flow chart depicting the normal electrical pathway through the heart.	424, 425–426
09.08	Apply knowledge of cells and tissues in the cardiovascular system.	378–390, 414–417, 423–426
09.09	Demonstrate knowledge of the composition of blood to include formed elements and plasma.	379–386
09.10	Evaluate ABO blood types and Rh factor.	391–394
09.11	Predict potential blood donors for a transfusion through the analysis of blood types with ABO and/or Rh compatibility.	392–393, 394
09.12	Identify and analyze common diseases and disorders of the cardiovascular system including etiology, prevention, pathology, diagnosis and treatment/rehabilitation.	395–405, 442–453

09.13	Discuss or research health careers related to the cardiovascular system.	406–407, 454–455
09.14	Demonstrate knowledge of skills related to the cardiovascular system which might include assessing pulse.	437–441
<b>10.0 Analyze the lymphatic and immune systems in relation to health and disease–The student will be able to:</b>		
10.01	Apply medical terminology as related to the lymphatic and immune systems.	462–507
10.02	Discuss and describe the structure and function of the lymphatic and immune systems across the lifespan.	471
10.03	Validate the importance of the accessory organs (thymus, tonsils, spleen, appendix, Peyer’s patch) promoting the effectiveness of the lymphatic and immune system.	468–473
10.04	Compare and contrast passive and active immunity.	486–489
10.05	Discuss the impact of B cells and T cells on diseases of the immune system.	468–469, 484–491
10.06	Evaluate and discuss the body’s defense mechanisms in relation to common communicable diseases.	474–499
10.07	Apply knowledge of cells and tissues in the lymphatic and immune systems.	464–473
10.08	Identify and analyze common diseases and disorders of the lymphatic and immune system including etiology, prevention, pathology, diagnosis and treatment/rehabilitation.	492–499
10.09	Discuss or research health careers related to the lymphatic and immune systems.	500–501
10.10	Demonstrate knowledge of skills related to the lymphatic and immune systems.	473, 482, 491, 499, 504–507
<b>11.0 Analyze the respiratory system in relation to health and disease–The student will be able to:</b>		
11.01	Apply medical terminology as related to the respiratory system.	338–375
11.02	Discuss and describe the structure and function of the respiratory system across the lifespan.	354–355



11.03	Evaluate the interrelatedness of the cardiovascular and respiratory systems.	340
11.04	Apply knowledge of cells and tissues in the respiratory system.	340–347
11.05	Identify and analyze common diseases and disorders of the respiratory system including etiology, prevention, pathology, diagnosis and treatment/rehabilitation.	357–367
11.06	Discuss or research health careers related to the respiratory system.	368–369
11.07	Demonstrate knowledge of skills related to the respiratory system which might include monitoring respirations.	352–356, 374–375, 438
<b>12.0 Analyze the digestive system in relation to health and disease–The student will be able to:</b>		
12.01	Apply medical terminology as related to the digestive system.	516–549
12.02	Discuss and describe the structure and function of the digestive system across the lifespan.	534
12.03	Apply knowledge of cells and tissues in the digestive system.	516–535
12.04	Identify and analyze common diseases and disorders of the digestive system including etiology, prevention, pathology, diagnosis and treatment/rehabilitation.	536–543
12.05	Discuss or research health careers related to the digestive system.	544–545
12.06	Demonstrate knowledge of skills related to the digestive system which might include a nutritional self-assessment.	510–515
<b>13.0 Analyze the urinary system in relation to health and disease–The student will be able to:</b>		
13.01	Apply medical terminology as related to the urinary system.	550–587
13.02	Discuss and describe the structure and function of the urinary system across the lifespan.	569
13.03	Justify the interrelatedness of the urinary and cardiovascular system in promoting homeostasis.	552, 556, 564–565

13.04	Apply knowledge of cells and tissues in the urinary system.	552–570
13.05	Identify and analyze common diseases and disorders of the urinary system including etiology, prevention, pathology, diagnosis and treatment/rehabilitation.	571–581
13.06	Discuss or research health careers related to the urinary system.	582–583
13.07	Demonstrate knowledge of skills related to the urinary system which may include measuring Intake and Output.	581, 586, 587
<b>14.0 Analyze the both the male and female reproductive systems in relation to health and disease–The student will be able to:</b>		
14.01	Apply medical terminology as related to the each of the male and female reproductive systems.	596–610, 620–636
14.02	Discuss and describe the structure and function of both reproductive systems across the lifespan.	590–610
14.03	Apply knowledge of cells and tissues of both reproductive systems.	590–610
14.04	Identify and analyze common diseases and disorders of both reproductive systems including etiology, prevention, pathology, diagnosis and treatment/rehabilitation.	620–629
14.05	Discuss or research health careers related to both reproductive systems.	630–631
14.06	Demonstrate knowledge of skills related to the reproductive system which may include measuring fetal development and relating it to possible complications.	611–619, 636
<b>15.0 Identify and explain factors relating to genetics and disease–The student will be able to:</b>		
15.01	Analyze DNA and its role in human heredity.	50–51
15.02	Describe the role of human genetics in relation to genetic diseases.	250–252, 398–400, 400–403, 483, 496
15.03	Discuss or research current issues related to genetic research.	610, 628

15.04	Explore the relationship between mutation, cell cycle and uncontrolled cell growth that can result in cancer.	479, 492–494
15.05	Explore how environmental factors contribute to an individual's overall wellness and quality of life.	395, 396–398, 402–403
<b>16.0 Evaluate and apply the principles of disease transmission and control to real-world scenarios. –The student will be able to:</b>		
16.01	Discuss and explain the direct and indirect transmission of disease.	358, 360, 475
16.02	Discuss and apply the principles of the chain of infection to real-world scenarios.	475, 507
16.03	Categorize the common microorganisms affecting the human body.	103–108, 249, 281–282, 358–360, 497, 538, 539–540, 579–580, 622–625
16.04	Identify and analyze common diseases caused by microorganisms.	103–108, 249, 281–282, 358–360, 497, 538, 539–540, 579–580, 622–625