

Goodheart-Willcox Publisher

Correlation of *INTRODUCTION TO ANATOMY AND PHYSIOLOGY 2E* ©2021

to the SC 2014

for Health Science 3–5552: Human Structure and Function.

STANDARD		G-W CORRELATING PAGES
<b>Foundation 1: Academic Foundations</b>		
<b>Understand human anatomy, physiology, common diseases and disorders, and medical math principles.</b>		
<b>1.1 Human Anatomy and Physiology</b>		
1.11	Identify basic levels of organization of the human body.	12
	a. Chemical	12
	b. Cellular	12
	c. Tissue	12
	d. Organs	12
1.12	Identify body planes, directional terms, cavities, and quadrants.	5–9
	a. Body planes (sagittal, mid–sagittal, coronal/frontal, transverse/horizontal).	5–7
	b. Directional terms (superior, inferior, anterior/ventral, posterior/dorsal, medial, lateral, proximal, distal, superficial, and deep).	7
	c. Cavities (dorsal, cranial, spinal, thoracic, abdominal, and pelvic).	8–9
	d. Quadrants (upper right, lower right, upper left, and lower left).	7–8
1.13	Analyze basic structures and functions of human body systems (skeletal, muscular, integumentary, cardiovascular, lymphatic, respiratory, nervous, special senses, endocrine, digestive, urinary, and reproductive).	12–15
	a. Skeletal (bone anatomy, axial and appendicular skeletal bones, functions of bones, ligaments, types of joints)	120–171
	b. Muscular (microscopic anatomy of muscle tissue, types of muscle, locations of skeletal muscles, functions of muscles, tendons, directional movements)	172–215

	c. Integumentary (layers, structures and functions of skin)	93–119
	d. Cardiovascular (components of blood, structures and functions of blood components, structures and functions of the cardiovascular system, conduction system of the heart, cardiac cycle)	378–394, 414–441
	e. Lymphatic (structures and functions of lymphatic system, movement of lymph fluid)	464–491
	f. Respiratory (structures and functions of respiratory system, physiology of respiration)	340–356
	g. Nervous (structures and functions of nervous tissue and system, organization of nervous system)	216–261
	h. Special senses (structures and functions of eye, ear, nose and tongue; identify senses for sight, hearing, smell, taste, touch)	264–291
	i. Endocrine (endocrine versus exocrine, structures and functions of endocrine system, hormones, regulation of hormones)	300–319
	j. Digestive (structures and functions of gastrointestinal tract, chemical and mechanical digestion, structures and functions of accessory organs)	512–535
	k. Urinary (structures and functions of urinary system, gross and microscopic anatomy, process of urine formation, urine composition, homeostatic balance)	552–570
	l. Reproductive (structures and functions of male and female reproductive systems, formation of gametes, hormone production and effects, menstrual cycle, and conception)	590–619
<b>1.2 Diseases and Disorders</b>		
1.21 Describe common diseases and disorders of each body system (such as: cancer, diabetes, dementia, stroke, heart disease, tuberculosis, hepatitis, COPD, kidney disease, arthritis, ulcers).		101–113, 155–163, 200–207, 245–253, 268–273, 279–282, 286–287, 289–290, 320–329, 357–367, 395–405, 442–453, 492–499, 536–543, 571–581, 620–629
	a. Etiology	101–113, 155–163, 200–207, 245–253, 268–273, 279–282, 286–287, 289–290, 320–329, 357–367, 395–405, 442–453, 492–499, 536–543, 571–581, 620–629

	b. Pathology	101–113, 155–163, 200–207, 245–253, 268–273, 279–282, 286–287, 289–290, 320–329, 357–367, 395–405, 442–453, 492–499, 536–543, 571–581, 620–629
	c. Diagnosis	101–113, 155–163, 200–207, 245–253, 268–273, 279–282, 286–287, 289–290, 320–329, 357–367, 395–405, 442–453, 492–499, 536–543, 571–581, 620–629
	d. Treatment	101–113, 155–163, 200–207, 245–253, 268–273, 279–282, 286–287, 289–290, 320–329, 357–367, 395–405, 442–453, 492–499, 536–543, 571–581, 620–629
	e. Prevention	101–113, 155–163, 200–207, 245–253, 268–273, 279–282, 286–287, 289–290, 320–329, 357–367, 395–405, 442–453, 492–499, 536–543, 571–581, 620–629
1.22 Discuss research related to emerging diseases and disorders (such as: autism, VRSA, PTSD, Listeria, seasonal flu).		499
1.23 Describe biomedical therapies as they relate to the prevention, pathology, and treatment of disease.		65, 235, 384, 402, 495, 626
	a. Gene testing	205, 628
	b. Gene therapy	628
	c. Human proteomics	45
	d. Cloning	495
	e. Stem cell research	402, 404, 405
<b>1.3 Medical Mathematics</b>		
1.31 Demonstrate competency in basic math skills and mathematical conversions as they relate to healthcare.		38, 86, 119, 170, 214, 260, 296–297, 336, 374, 410, 460, 506, 549, 586, 636, 638–639
	a. Metric system (such as: centi, milli, kilo)	9–10, 11, 637
	b. Mathematical (average, ratios, fractions, percentages, addition, subtraction, multiplication, division)	638–639
	c. Conversions (height, weight/mass, length, volume, temperature, household measurements)	10, 637
1.32 Demonstrate the ability to analyze diagrams, charts, graphs, and tables to interpret healthcare results.		38, 86, 119, 170, 214, 260, 296–297, 336, 374, 410, 460, 506, 549, 586, 636
1.33 Demonstrate use of the 24–hour clock/military time.		587, 618
<b>Foundation 2: Communications</b>		

<b>Healthcare professionals will know the various methods of giving and obtaining information. They will communicate effectively, both orally and in writing.</b>	
2.1. Use medical terminology and medical math to communicate information. Oral and written.	5–9, 38, 86, 119, 170, 214, 260, 296–297, 336, 374, 410, 460, 506, 549, 586, 636
2.2 Apply active speaking and listening skills.	37–38, 87, 171, 214, 261, 297, 337, 374, 507, 549, 587, 636
<b>Foundation 3: Systems</b> <b>Healthcare professionals will understand how their role fits into their department, their organization and the overall healthcare environment. They will identify how key systems affect services they perform and the quality of care.</b>	
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<b>Foundation 4: Employability Skills</b> <b>Healthcare professionals will understand how employability skills enhance their employment opportunities and job satisfaction. They will demonstrate key employability skills and will maintain and upgrade skills, as needed.</b>	
4.1. Demonstrate employability skills (as they apply to hygiene, dress, language, confidentiality, behavior and work ethic)	32–33
4.2. Expand components of a personal portfolio (letter of introduction, resume, healthcare project, writing sample, work–based learning, oral presentation, service learning, credentials, technology, and leadership experience).	32–33, 39, 87, 119, 171, 215, 261, 297, 337, 375, 411, 461, 507, 549, 587, 636
4.3. Participate in healthcare work–based learning experiences (guest speakers, virtual tours, job shadowing, blood drives, community service projects, etc.).	31
<b>Foundation 5: Legal Responsibilities</b> <b>Healthcare professionals will understand the legal responsibilities, limitations, and implications of their actions within the healthcare delivery setting. They will perform their duties according to regulations, policies, laws, and legislated rights of clients.</b>	27, 32–33, 51, 577, 623
5.1. Apply procedures for accurate documentation and record keeping.	33, 283, 297, 411, 543, 610
5.2. Apply standards for Health Insurance Portability and Accountability Act (HIPAA).	33
<b>Foundation 6: Ethics</b> <b>Healthcare professionals will understand accepted ethical practices with respect to cultural, social, and ethnic differences within the healthcare environment. They will perform quality healthcare delivery.</b>	
6.1. Discuss bioethical issues related to disease.	27, 51, 337, 577

6.2 Apply ethical behaviors in healthcare including personal, professional, and organizational ethics.	577, 623
6.3 Apply procedures for reporting activities and behaviors that affect health, safety, and welfare of others.	27, 119
<b>Foundation 7: Safety Practices</b> <b>Healthcare professionals will understand the existing and potential hazards to clients, co-workers, and self. They will prevent injury or illness through safe work practices and follow health and safety policies and procedures.</b>	
7.1. Demonstrate principles of infection control using standard precautions in relation to the disease process and prevention.	475
7.2. Comply with safety signs, symbols and labels.	27
<b>Foundation 8: Teamwork</b> <b>Healthcare professionals will understand the roles and responsibilities of individual members as part of the healthcare team, including their ability to promote the delivery of quality healthcare. They will interact effectively and sensitively with all members of the healthcare team.</b>	
8.1 Act responsibly as a team member.	33, 68, 115, 141, 331, 374, 453, 507, 636
<b>Foundation 9: Health Maintenance Practices</b> <b>Healthcare professionals will understand the fundamentals of wellness and the prevention of disease processes. They will practice preventive health behaviors among the clients.</b>	
9.1. Describe strategies for prevention of diseases including health screenings and examinations.	104, 107, 108, 109, 112, 156, 161, 201, 202, 205, 246, 250, 269, 272, 279, 286, 290, 292–293, 321, 322, 324, 325, 326, 358, 360, 361, 366, 397, 399, 401, 411, 445, 447, 448, 450, 454–455, 493, 537, 541, 573, 621
9.2. Apply practices that promote prevention of disease and injury.	27, 104, 107, 108, 109, 112, 156, 161, 201, 202, 205, 246, 250, 269, 272, 279, 286, 290, 321, 322, 324, 325, 326, 358, 360, 361, 366, 397, 399, 401, 445, 447, 448, 450, 493, 537, 541, 573, 621
<b>Foundation 10: Technical Skills</b> <b>Healthcare professionals will apply technical skills required for all career specialties. They will demonstrate skills and knowledge as appropriate.</b>	
10.1. Revisit procedures for measuring and recording vital signs as you approach the appropriate body system. (including recognition of normal ranges and understanding what the data means in relation to body systems and disease.)	437–440
<b>Foundation 11: Information Technology Applications</b> <b>Healthcare professionals will use information technology applications required within all career specialties. They will demonstrate use as appropriate to healthcare application.</b>	

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