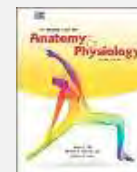


Goodheart-Willcox Publisher

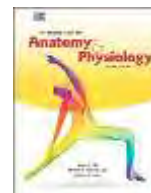
Correlation of Book Introduction to Health Anatomy Physiology ©2021 to South Carolina Department of Education

Course: Health Science - 5552

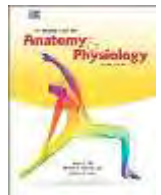
Human Structure, Function, And Disease (Grades 9-12)



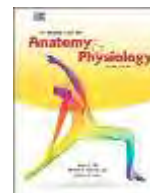
Standards		Correlating Text Pages
Foundation 1: Academic Foundations Healthcare professionals will understand human anatomy, physiology, common diseases and disorders, and medical math principles as required for proficiency within their area. They will use this knowledge as needed in their role. The following accountability criteria are considered essential for students in a health science program of study.		
1.	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
2.	Demonstrate competency in basic math skills and 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. The Metric System , (i.e., centi-, milli-, kilo-, deci-, and micro-)	9-10, 9, (Mathematics in Science and Medicine), 10, (Check Your Understanding #1-3), (Figure1-7 Rules for Constructing Tables and Graphs), 11 (In the Lab #12-14), 637, (Metric-English Conversion Factors)
	b. Mathematical (average, ratios, fractions, percentages, addition, subtraction, multiplication, division).	638-639, 638 (Basic Mathematical Operations), 639 (Fractions)
	c. Conversions (height, weight/mass, length, volume, temperature, household measurements)	10, (Check Your Understanding #1-3), (Figure1-7 Rules for Constructing Tables and Graphs) 637, (Metric-English Conversion Factors)
	d. Perform mathematical applications to determine vital sign applications and basic pharmacology equations.	114 (Career Corner)
3.	Demonstrate use of the 24-hour clock/military time.	587, (Figure14.21 Use military time and metric quantities), 618 (Analyze and Apply #10)
4.	Identify basic levels of organization of the human body, i.e., chemical, cellular, tissue, organs, systems, organism.	Organ System, 12-15 (Structural and Functional Organization of the Body), (Check Your Understanding), Tissue, 69-79, 77 Life Span Development: (Cells and tissue)
5.	Identify and demonstrate body planes, directional terms, cavities, and quadrants.	5-9, 5 (Describing the Human Body), (Memory Tip) (Figure 1.1 The anatomical reference position), 6 (Figure1.2 Movement terminology. A—Sagittal plane movements. B—Frontal plane movements. C—Transverse plane movements), 7 (Common Directional Terms for Anatomy Figure 1.3), (Quadrants and Regions-Regions of the Body),



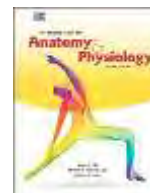
Standards		Correlating Text Pages
		(Figure 1.4), 8, Cavities, (Figure 1.6), 9, (Mathematics in Science and Medicine)
	a. Body planes (sagittal, mid-sagittal, coronal/frontal, transverse/horizontal).	5-7, 5 (Describing the Human Body), (Memory Tip) (Figure 1.1 The anatomical reference position), 6 (Figure 1.2 Movement terminology. A—Sagittal plane movements. B—Frontal plane movements. C—Transverse plane movements), 7 (Common Directional Terms for Anatomy Figure 1.3), (Quadrants and Regions-Regions of the Body), (Figure 1.4)
	b. Directional terms (superior, inferior, anterior/ventral, posterior/dorsal, medial, lateral, proximal, distal, superficial, and deep).	5-7, 5 (Describing the Human Body), (Memory Tip) (Figure 1.1 The anatomical reference position), 6 (Figure 1.2 Movement terminology. A—Sagittal plane movements. B—Frontal plane movements. C—Transverse plane movements), 7 (Common Directional Terms for Anatomy Figure 1.3), (Quadrants and Regions-Regions of the Body), (Figure 1.4)
	c. Cavities (dorsal, cranial, spinal, thoracic, abdominal, and pelvic).	5-9, 5 (Describing the Human Body), (Memory Tip) (Figure 1.1 The anatomical reference position), 6 (Figure 1.2 Movement terminology. A—Sagittal plane movements. B—Frontal plane movements. C—Transverse plane movements), 7 (Common Directional Terms for Anatomy Figure 1.3), (Quadrants and Regions-Regions of the Body), (Figure 1.4), 8, Cavities, (Figure 1.6), 9, (Mathematics in Science and Medicine)
	d. Quadrants (upper right, lower right, upper left, and lower left).	7-8, 7 (Common Directional Terms for Anatomy Figure 1.3), (Quadrants and Regions-Regions of the Body,) (Figure 1.4), 8, Cavities, (Figure 1.6)
6.	Identify basic structures and functions of human body systems (skeletal, muscular, integumentary, cardiovascular, lymphatic, respiratory, nervous, special senses, endocrine, digestive, urinary, and reproductive).	12-15, Organ System, 12 (Structural and Functional Organization of the Body), (Check Your Understanding), 13 (Figure 1.8 The organ systems of the body.), 15 (Figure 1.9 The Human Organ Systems), (Figure 1.10 Sweating during vigorous exercise helps to cool the body.)
	a. Skeletal (bone anatomy with emphasis on long bone, axial and appendicular skeletal bones, functions of bones to include mineral storage and hematopoiesis, ligaments, types and movements of joints)	Skeletal System , 120-171, 317, Functions of, 122-123, Structures And Classifications of, 123-130, Remodeling of, 130, Skull, 132-135, Vertebral Column, 135-140, Thoracic Cage, 140, Upper Extremity of Appendicular, 142-146, Lower Extremity of Appendicular, 146-149, Immovable Joints, 151, Slightly Movable Joints, 151-152, Freely



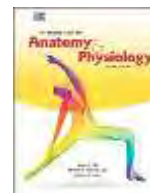
Standards		Correlating Text Pages
		Movable Joints, 152-153, Articular Tissues, 153, Joint Injuries, 160-161, Aging Effects on, 317
	b. Muscular (microscopic anatomy of muscle tissue, types of muscle, locations of skeletal muscles, functions of muscles, tendons, directional movements)	Muscular System , 77-78, 172-215, 264-265, Overview, 77-78, Skeletal Muscle, 174, Smooth Muscle, 174-176, Functions Of, 176-178, Cardiac Muscle, 176, Extrinsic Muscles Of Eyes, 264-265
	c. Integumentary (layers, structures, functions and components of skin)	Integumentary System , 93-112 Function, 93-94, Skin Anatomy, 94-97, Skin Appendages, 97-99
	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 to include blood flow)	Cardiovascular System , 412-461, Blood Vessels In, 427-430, Pulmonary Circulation In, 430, Systemic Circulation In, 430-436, Fetal Circulation In, 436, Vital Signs Measurement, 437-439, Weight And BMI Measurement, 440, Dysrhythmias In, 443-445
	e. Lymphatic (structures and functions of lymphatic system, movement of lymph fluid)	Lymphatic System , Organization, 464-468, Cells, Tissues, and Organs, 468-472, Cancer and Lymph Nodes, 492-494
	f. Respiratory (structures and functions of respiratory system, physiology of respiration)	Respiratory System , 70, 338-375, Overview, 70, Upper Respiratory Tract, 340-344, Lower Respiratory Tract, 344-346 Respiration Process, 348-350, Breathing Control, 350-352, Lung Volume, 352-355, Lower Respiratory Tract Diseases, 359-360
	g. Nervous (structures and functions of nervous tissue and system, organization of nervous system, emphasis on sensation, movement and processing)	Nervous System , 216-261, Organization, 218-219, Neurons, 220-221, Action Potentials, 224-225, Brain, 230-236, Cranial Nerves, 238-240, Spinal Cord, 236, Autonomic, 241-244
	h. Special Senses (structures and functions of eye, ear, nose and tongue; Identify senses for sight, hearing, smell, taste, touch).	Sensory Systems , 262-297, Ear, 275-282, Eye, Anatomy of, 264-273, Smell, Anatomy And Physiology of, 284-287, Taste, Disorders of Tongue, 288-290
	i. Endocrine (endocrine versus exocrine, structures and functions of endocrine system, hormones, regulation of hormones)	Endocrine System , 298-337, 424, 531-532, Anatomy Of, 300-301, Hormones Of, 301-305, Hypothalamus, 307, Pituitary Gland, 307-311, Thyroid Gland, 311-312, Parathyroid Gland, 312-313, Adrenal Gland, 313-315, Pineal Gland, 316, Thymus, 316, Gonads, 317, Pancreas, 315-316, 326-328, Heart Rate Affected By, 424
	j. Digestive (structures and functions of gastrointestinal tract with focus on absorption and excretion, chemical and	Digestive System Activities of, 516-518, GI Tract, 518-520, Esophagus, 524, Stomach, 524-526, Small Intestine, 526-528,



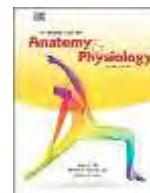
Standards		Correlating Text Pages
	mechanical digestion, structures and functions of accessory organs)	Liver And Gallbladder, 528-531, Large Intestine, 532-533
	k. Urinary (structures and functions of urinary system, gross and microscopic anatomy, process of urine formation, urine composition, homeostatic balance)	Urinary System , 70, 550-587, Overview, 70, Diabetes Impact, 573-576, Fetal Development, 569, Kidney, 552-556, 577, 578, Urine Formation, 558-565, Urine Storage, 565-567, Renal Function Assessment, 571-573
	l. Reproductive (structures and functions of male and female reproductive systems, formation of gametes, hormone production and effects, menstrual cycle, and conception)	Reproductive System , Reproductive Process, 590, Mitosis Versus Meiosis, 591-593, Development And Puberty, 593-594, Anatomy of Male, 596-598, Physiology of Male, 599, Anatomy of Female, 601-605, Physiology of Female, 605-609 Fertilization, 611-612, Pregnancy, 612-615, Childbirth, 616, Lactation, 616-617, Infertility, 620-622
7.	Describe common diseases and disorders of each body system (such as: cancer, diabetes, dementia, stroke, heart disease, tuberculosis, hepatitis, COPD, kidney disease, arthritis, ulcers, asthma, cataracts, concussions/TBI, cystic fibrosis, melanoma, muscular dystrophy, myocardial infarction, sexually transmitted infection, urinary tract infections).	101-113, 101 (Clinical Case Study), 103 (Check Your Understanding), 111, (Cancer of the Skin), 155-163, 200-207, 200 (Clinical Case Study), 202, (Check Your Understanding), 245-253, 252 (Dementia), 268-273, 279-282, 286-287, 289-290, 320-329, 326, (Diabetes Mellitus), 326, 357-367, 360, (COPD- Chronic obstructive pulmonary disease), 395-405, 442-453, 448, (Myocardial Infarction), 492-499, 536-543, 571-581, 620-629, 622 (STIs (Sexually Transmitted Infections))
	a. Etiology	101-113, 101 (Clinical Case Study), 103 (Check Your Understanding), 111, (Cancer of the Skin), 155-163, 200-207, 200 (Clinical Case Study), 202, (Check Your Understanding), 245-253, 252 (Dementia), 268-273, 279-282, 286-287, 289-290, 320-329, 326, (Diabetes Mellitus), 326, 357-367, 360, (COPD), 395-405, 442-453, 448, (Myocardial Infarction), 492-499, 536-543, 571-581, 620-629, 622 (STIs (Sexually Transmitted Infections))
	b. Pathology	101-113, 101 (Clinical Case Study), 103 (Check Your Understanding), 111, (Cancer of the Skin), 155-163, 200-207, 200 (Clinical Case Study), 202, (Check Your Understanding), 245-253, 252 (Dementia), 268-273, 279-282, 286-287, 289-290, 320-329, 326, (Diabetes Mellitus), 326, 357-367, 360, (COPD- Chronic obstructive pulmonary disease) 395-405, 442-453, 448, (Myocardial Infarction), 492-499, 536-543, 571-581, 620-629, 622 (STIs (Sexually Transmitted Infections))



Standards		Correlating Text Pages
	c. Diagnosis	101-113, 101 (Clinical Case Study), 103 (Check Your Understanding), 111, (Cancer of the Skin), 155-163, 200-207, 200 (Clinical Case Study), 202, (Check Your Understanding), 245-253, 252 (Dementia), 268-273, 279-282, 286-287, 289-290, 320-329, 326, (Diabetes Mellitus), 326, 357-367, 360, (COPD-Chronic obstructive pulmonary disease)395-405, 442-453, 448, (Myocardial Infarction), 492-499, 536-543, 571-581, 620-629, 622 (STIs (Sexually Transmitted Infections))
	d. Treatment	101-113, 101 (Clinical Case Study), 103 (Check Your Understanding), 111, (Cancer of the Skin), 155-163, 200-207, 200 (Clinical Case Study), 202, (Check Your Understanding), 245-253, 252 (Dementia), 268-273, 279-282, 286-287, 289-290, 320-329, 326, (Diabetes Mellitus), 326, 357-367, 360, (COPD-Chronic obstructive pulmonary disease)395-405, 442-453, 448, (Myocardial Infarction), 492-499, 536-543, 571-581, 620-629, 622 (STIs (Sexually Transmitted Infections))
	e. Prevention	101-113, 101 (Clinical Case Study), 103 (Check Your Understanding), 111, (Cancer of the Skin), 155-163, 200-207, 200 (Clinical Case Study), 202, (Check Your Understanding), 245-253, 252 (Dementia), 268-273, 279-282, 286-287, 289-290, 320-329, 326, (Diabetes Mellitus), 326, 357-367, 360, (COPD-Chronic obstructive pulmonary disease)395-405, 442-453, 448, (Myocardial Infarction), 492-499, 536-543, 571-581, 620-629, 622 (STIs (Sexually Transmitted Infections))
8.	Discuss research related to emerging diseases and disorders (such as: autism, VRSA, PTSD, Listeria, seasonal flu, coronavirus, SARS, MERS, Ebola, etc.).	497-499, 497, (Check Your Understanding #1, #2), 499, (In the Lab #17)
9.	Describe biomedical therapies as they relate to the prevention, pathology, and treatment of disease.	65, 235, 384, 402, 495, 626,
	a. Gene testing	49-51, 50, Figure 2.10A DNA molecule, 51, Gene Therapy, 628, Taking It Further #1-3
	b. Gene therapy	51, Gene Therapy, 628, Taking It Further #1-3
	c. Cloning	495, 505, Think Critically #32
Foundation 2: Communications		



Standards		Correlating Text Pages
Healthcare professionals will know and demonstrate the various methods of giving and obtaining information. They will communicate effectively, both orally and in writing		
1.	Use medical terminology and medical math to communicate information, orally and written.	5-9, 38, 86, 119, 170, 214, 260, 296-297, 336, 374, 410, 460, 506, 549, 586
2.	Apply active speaking and listening skills	37-38, 87, 171, 214, 261, 297, 337, 374, 507, 549, 587, 636
Foundation 3: Systems		
Healthcare professionals will understand how their role fits into their department, their organization and the overall healthcare environment. They will review and identify how key systems affect services they perform and the quality of care.		
1.	Health Care Delivery System	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
2	Non-Profits	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
3.	Governmental Agencies	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
4.	Insurances	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
Foundation 4: Employability Skills		
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.		
1.	Demonstrate employability skills (as they apply to hygiene, dress, language, confidentiality, behavior and work ethic)	32-33, 32 (Identifying the Right Job), (Planning for a Health-Related Career)
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
3.	Participate in healthcare work-based learning experiences (guest speakers, virtual tours, job shadowing, blood drives, community service projects, etc.).	31, (In The Lab #13-15)
Foundation Standard 5: Legal Responsibilities		
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.		
1.	Review procedures for accurate documentation and record keeping.	27, 32-33, 33 documentation, in healthcare professions, 51, 577, 623



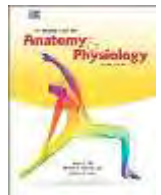
Standards		Correlating Text Pages
2.	Review standards for Health Insurance Portability and Accountability Act (HIPAA).	33 (Skills and Behaviors for Healthcare Professional)
Foundation Standard 6: Ethics Healthcare professionals will understand accepted ethical practices with respect to cultural, social, and ethnic differences within the healthcare environment. They will perform quality healthcare delivery.		
1.	Discuss bioethical issues related to disease.	27, Ethical Issues In Research, 51, 337, 577
2.	Apply ethical behaviors in healthcare including personal, professional, and organizational ethics.	577, 623
3.	Apply procedures for reporting activities and behaviors that affect health, safety, and welfare of others.	27, Ethical Issues In Research, 119
Foundation Standard 7: Safety Practices 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.		
1.	Demonstrate principles of infection control using standard precautions in relation to the disease process and prevention.	475, Chain of Infection
2.	Comply with safety signs, symbols and labels.	27, Safety Issues In Research
Foundation Standard 8: Teamwork 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.		
1.	Act responsibly as a team member.	33, 68, 115, 141, 331, 374, 453, 507, 636
Foundation Standard 9: Health Maintenance Practices Healthcare professionals will understand the fundamentals of wellness and the prevention of disease processes. They will practice preventive health behaviors among the clients.		
1.	Describe strategies for prevention of diseases including health screenings and examinations.	04, 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
2.	Apply practices that promote prevention of disease and injury.	04, 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
Foundation Standard 10: Technical Skills Healthcare professionals will apply technical skills required for all career specialties. They will demonstrate skills and knowledge as appropriate.		



Goodheart-Willcox Publisher

18604 West Creek Drive • Tinley Park, IL 60477-6243

Web www.g-w.com
Orders 800.323.0440
Phone 708.687.5000
Fax 708.687.5068



Standards		Correlating Text Pages
1.	Integrate 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, 437, Vital Signs Measurement, 437 Checking Your Pulse, 437 Memory Tips, 438 (Figure 11.24) Measuring Blood Pressure, 439 Check Your Understanding, #1-4, 440 Memory Tips, 440 Check Your Understanding
Foundation Standard 11: Information Technology in Healthcare Review how Healthcare professionals will use information technology applications required within all career specialties. They will demonstrate use as appropriate to healthcare application.		
1.	Healthcare professionals will use information technology applications required within all career specialties. They will demonstrate use as appropriate to healthcare application.	31-33, 31 In The Lab #14, 33 Technology, In Healthcare Professions