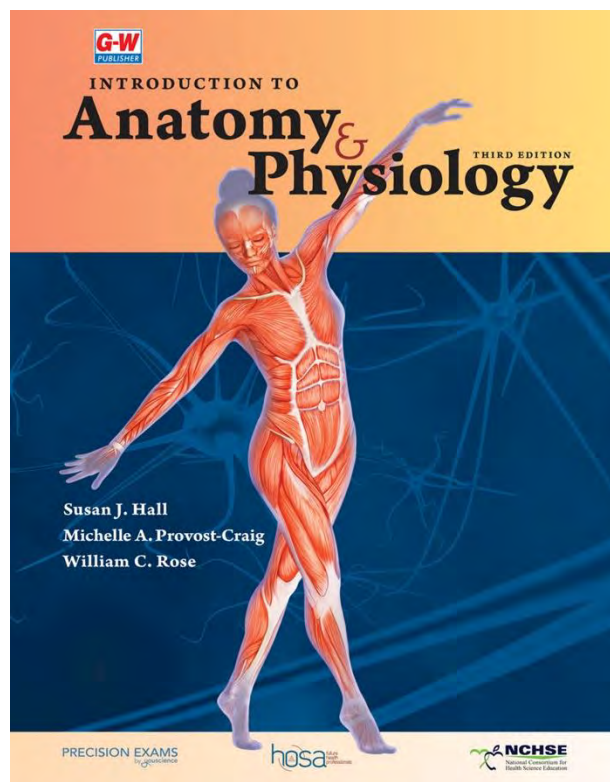


Correlation of
Introduction to Anatomy and Physiology
(Goodheart-Willcox Publisher ©2024)
to
NCHSE 2020 Curriculum Framework
Human Structure, Function, and Disease (A)

Goodheart-Willcox is pleased to partner with Precision Exams by correlating *Introduction to Anatomy and Physiology* to their Anatomy and Physiology standards. Precision Exams standards and Career Skills Exams were created in concert with industry and subject matter experts to match real-world job skills and marketplace demands. Students that pass the exam and performance portion of the exam can earn a Career Skills Certification.

The correlation chart below lists the standards, objectives, and indicators for the Anatomy and Physiology exam in the left column. Corresponding content from *Introduction to Anatomy and Physiology* that can be used by a student to help achieve the standard, objective, or indicator is listed in the right column.

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| Standards / Objectives / Indicators | Textbook Pages |
|--|---|
| 1.0 Medical Terminology | |
| Demonstrate methods of delivering and obtaining information, while communicating effectively. | |
| 1.1 Use common roots, prefixes, and suffixes to communicate information regarding body systems, diseases and disorders. | 2, 5, 48, 49, 55, 83, 85, 102, 161, 214, 289, 328, 485, 488, 492, 498, 543, 551, 578, 582, 596, 626 |
| 1.2 Interpret common medical abbreviations | 279, 390, 480, 666 |
| 2.0 Anatomy and Physiology | |
| Understand human anatomy, physiology, common diseases and disorders, and medical math principles. | |

Correlation of *Introduction to Anatomy & Physiology* to Precision Exams by YouScience Human Structure, Function, and Disease (A) Curriculum—page 2

| Standards / Objectives / Indicators | Textbook Pages |
|--|---|
| 2.1 Identify basic levels of organization of the human body <ul style="list-style-type: none"> • Chemical • Cellular • Tissue • Organs • Systems • Organism | 48-59 61-75 76-87 8 4-5, 12 12-15 |
| 2.2 Identify body planes, directional terms, cavities, and quadrants. <ul style="list-style-type: none"> • Body planes (sagittal, mid-sagittal, coronal/frontal, transverse/horizontal) • Directional terms (superior, inferior, anterior/ventral, posterior/dorsal, medial, lateral, proximal, distal, superficial, and deep) • cavities (dorsal, cranial, orbital, nasal, oral, spinal, thoracic, abdominal, and pelvic) • Quadrants (upper right, lower right, upper left, and lower left) | 6-7, 11 7 8 7 |
| 2.3 Investigate the process of homeostasis. | 15-18, 19, 41, 42, 64, 93, 109, 110, 133, 168, 214, 233, 258, 296-297, 321-323, 324, 325, 330-331, 334, 338, 352, 396, 399, 432, 550, 553, 574, 587 |
| 2.4 Skeletal System | 130-183 |
| 2.4.1 Structures of the skeletal system <ul style="list-style-type: none"> • Distinguish between axial and appendicular skeletons • Describe long bone anatomy • Identify joint types and movement • Name and classify all bones (206) | 142-160 142, 152 135-140, 153-155, 157-158 161-162 142-160 |
| 2.4.2 Functions of the skeletal system <ul style="list-style-type: none"> • Structure and support • Muscle attachment and movement • Mineral storage • Hematopoiesis • Ossification | 132-137 132-133 163, 201-203 133 133 137-138 |
| 2.5 Muscular System | 184-229 |
| 2.5.1 Structures of the muscular system <ul style="list-style-type: none"> • Identify types of muscle tissue • Identify major muscle groups of neck, shoulder, chest, abdomen, back, arms and legs | 186-191, 201-211 186-188 203-211 |
| 2.5.2 Functions of the muscular system <ul style="list-style-type: none"> • Body movement • Posture • Protection | 186, 188-190 186, 189-190 186, 190 186, 204, 214 |
| 2.6 Integumentary System | 96-129 |
| 2.6.1 Structures of the integumentary system <ul style="list-style-type: none"> • Identify integumentary components • Label the layers of skin | 101-105 101-105 103, 104 |

Correlation of *Introduction to Anatomy & Physiology* to Precision Exams by YouScience Human Structure, Function, and Disease (A) Curriculum—page 3

| Standards / Objectives / Indicators | Textbook Pages |
|---|---|
| 2.6.2 Functions of the integumentary system <ul style="list-style-type: none"> Vitamin D production Sensory organ Infection protection Temperature regulation UV light protection | 101-102 102 102 102 101 102 |
| 2.7 Cardiovascular System | 394-481 |
| 2.7.1 Structures of the cardiovascular system <ul style="list-style-type: none"> Identify cardiovascular organs Label the parts of the heart Distinguish blood components | 432-435, 446-455 432 432-435 397-407 |
| 2.7.2 Functions of the cardiovascular system <ul style="list-style-type: none"> Blood flow through the heart and body Transportation of nutrients, waste, antibodies, hormones, and gases Cardiac conduction system | 432 435-436, 446-455 432 442, 443-444 |
| 2.8 Lymphatic/Immune System | 482-527 |
| 2.8.1 Structures of the lymphatic system <ul style="list-style-type: none"> Identify lymphatic organs | 484-493 490-491 |
| 2.8.2 Functions of the lymphatic system <ul style="list-style-type: none"> Provides protection against disease Movement of lymph fluid | 484-502 494-511 484-488 |
| 2.9 Respiratory System | 356-393 |
| 2.9.1 Structures of the respiratory system <ul style="list-style-type: none"> Identify respiratory organs | 358-365 358-365 |
| 2.9.2 Functions of the respiratory system <ul style="list-style-type: none"> Gas exchange | 366-374 366-370 |
| 3.0 Diseases and Disorders (Skeletal, Muscular, Integumentary, Cardiovascular, Lymphatic, Respiratory) | |
| 3.1 Describe etiology, pathology, diagnosis, treatment, and prevention of common diseases and disorders, including, but not limited to the following: <ul style="list-style-type: none"> Arthritis Asthma Cancer Cystic Fibrosis Melanoma Muscular Dystrophy Myocardial Infarction Stroke/Cardiovascular Accident (CVA) Tuberculosis | [The last lesson in Chapters 3, 4, 5, 9, 10, 11, and 12 contains detailed tables that address each of these aspects of diseases and disorders.] 171, 173 379, 381-382 120-121, 170, 383-384, 420-422, 512-514, 515 262-265 356, 373, 384 120-121, 122 218-219 468, 469, 470-471, 480, 481 250, 470, 472 378 |
| 3.2 Discuss research related to emerging diseases and disorders (such as: autism, VRSI, PTSD, Listeria, seasonal flu) | 50, 71, 114, 346, 376, 377, 382, 420, 491, 515, 519, 648, 649, 650 |
| 3.3 Describe biomedical therapies as they relate to prevention, pathology, and treatment of disease. <ul style="list-style-type: none"> Gene editing Gene testing Gene therapy Immunizations Immunotherapy Stem cell research | 81 81 384, 558 57, 384 69 384, 419, 513, 516 648 |
| 4.0 Medical Mathematics | |

Correlation of *Introduction to Anatomy & Physiology* to Precision Exams by YouScience Human Structure, Function, and Disease (A) Curriculum—page 4

| Standards / Objectives / Indicators | Textbook Pages |
|--|--|
| 4.1 Demonstrate competency using basic math skills and mathematical conversions as they relate to Healthcare. | 9-10, 660-661 |
| 4.2 Demonstrate the ability to analyze diagrams, charts, graphs, and tables to interpret healthcare results. | 28-29, 44, 94–95, 228, 278, 314-315, 354, 392, 414, 428-429, 480-481, 526, 571, 608, 609, 641, 658 |