

Anatomy and Physiology

Module Set I: Introduction to Anatomy and Physiology

Instructional/Task Analysis

Module 1: Organization of the Human Body

Related information: What the student should know

1. Define the terms *anatomy* and *physiology*.
2. Define the term *anatomical position*.
3. Label the common body planes.
4. Match the directional terms used in anatomy to their correct descriptions.
5. Describe the locating terms used in anatomy.
6. Describe the body positions.
7. List the general regions of the body.
8. State the contents of the major body cavities.
9. Label the quadrants of the abdominopelvic cavity.
10. Match the major abdominopelvic organs to their correct quadrant locations.
11. Label the regions of the abdomen.
12. List the major body structures in order of increasing complexity.
13. Match the major organ systems to their correct functions.
14. List the major organs and structures in each of the major organ systems.

Application: What the student should be able to do

15. Practice critical thinking: use directional terms to describe surgical incisions. (Assignment Sheet 1)
16. Define medical terms. (Assignment Sheet 2)

Module 2: Biochemistry and Microbiology

Related information: What the student should know

1. Define the terms *biochemistry* and *microbiology*.
 2. Discuss the role of chemistry in human health.
 3. Define the term *homeostasis*.
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Module Set I: Introduction to Anatomy and Physiology

Module 2: Biochemistry and Microbiology (continued)

Related information: What the student should know (continued)

4. Define the term *element*.
 5. Define the term *atom*.
 6. Label the parts of an atom.
 7. Define the term *molecule*.
 8. Distinguish among the definitions of the terms *compound*, *mixture*, and *solution*.
 9. Describe the primary role of each of the principal elements and compounds in the body.
 10. Complete statements that describe the chemical reactions that take place in the body.
 11. State the functions of the major types of organic compounds in the body.
 12. Complete phrases that describe the components of the major types of organic compounds in the body.
 13. Complete statements that describe the major elements and compounds that compose the body.
 14. Define types of solutions.
 15. Define the major types of fluid in the body.
 16. Define the term *electrolyte*.
 17. Discuss the role of electrolytes in human health.
 18. Discuss the role of acids and bases in human health.
 19. Define the term *metabolism*.
 20. Complete statements that describe the use of energy by the body.
 21. Complete statements that describe the characteristics of body temperature.
 22. State definitions of the basic activities that define life.
 23. State the cell theory.
 24. State the functions of the compounds found in protoplasm.
 25. Define the principal types of protoplasm.
 26. Label the major parts of a cell.
 27. Match the major parts of a cell to their correct functions.
 28. Describe the major parts of a cell nucleus.
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Module 2: Biochemistry and Microbiology (continued)

Related information: What the student should know (continued)

29. Describe the specialized structures in cells.
30. State the functions of the specialized structures in cells.
31. List the functions of a cell.
32. Define the term *transport*.
33. Distinguish between descriptions of the terms *active transport* and *passive transport*.
34. Match types of passive transport to their correct descriptions.
35. Match types of active transport to their correct descriptions.
36. Complete statements that describe the process of cell growth.
37. Describe the types of cell reproduction.
38. Describe the process in which the genetic makeup of a cell can be changed.
39. List the sources of mutation-causing conditions.
40. Match the types of cellular respiration to their correct descriptions.
41. Arrange in order the levels in the taxonomy system used to classify organisms.
42. Match the types of relationships between organisms to their correct descriptions.
43. Describe the classes of microorganisms.
44. Label the classes of microorganisms as classified by their shape.
45. Define the terms *resident flora* and *transient flora*.
46. Describe the purpose of a gram stain.
47. Complete statements that describe the characteristics of bacteria.
48. Complete statements that describe the characteristics of rickettsiae.
49. Complete statements that describe the characteristics of viruses.
50. Complete statements that describe the characteristics of protozoa.
51. Complete statements that describe the characteristics of fungi and algae.
52. Complete statements that describe common parasites that afflict humans.

Application: What the student should be able to do

53. Practice critical thinking: complete biochemistry and microbiology case studies. (Assignment Sheet 1)
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Module Set I: Introduction to Anatomy and Physiology

Module 3: Infection, Immunology, and Sanitation

Related information: What the student should know

1. Define the term *infection*.
 2. Complete statements that describe the effects of infection on a human host.
 3. Complete statements that describe methods used to reduce the spread of infection.
 4. Match types of infections and diseases to their correct descriptions.
 5. Define the phases in the course of a disease.
 6. Complete statements that describe the role of the body's portals of entry and portals of exit in the spread of infectious diseases.
 7. List sources of the microorganisms that cause infectious diseases.
 8. List the factors that determine whether a pathogen will cause a disease in a host's body.
 9. Define the factors that influence the virulence of a pathogen in a host's body.
 10. State the functions of the body's physical barriers to infection.
 11. State the functions of special structures, chemicals, and actions within the body that provide protection against infection.
 12. Define the term *immunology*.
 13. Define the types of immunity.
 14. Define the types of cellular and tissue defense-mechanism processes the body uses against disease and infection.
 15. Match types of white blood cells to their correct descriptions.
 16. Describe the stages of the interferon response.
 17. Describe the stages of phagocytosis.
 18. Distinguish between the definitions of a T cell and a B cell.
 19. Match types of T cells and B cells to their correct functions.
 20. Distinguish between descriptions of the types of immunity development in the serum-protein response.
 21. Describe the stages of cell-mediated immunity development in the serum-protein response.
 22. Describe the stages of humoral-mediated immunity development in the serum-protein response.
 23. Define the phases of the antibody-production cycle that follows the body's exposure to an antigen.
 24. Describe the stages of the inflammatory reaction.
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Module 3: Infection, Immunology, and Sanitation (continued)

Related information: What the student should know (continued)

25. Match types of vaccines to their correct definitions.
26. Define the term *hypersensitive response*.
27. Define the types of hypersensitive responses.
28. Match methods used to control the spread of microorganisms to their correct definitions.
29. State reasons certain industries must control the growth of microorganisms.
30. Describe the factors that determine the effectiveness of an antimicrobial procedure.
31. Match types of antimicrobial-control methods to their correct descriptions.
32. List factors that contribute to the spread of nosocomial infections.
33. Match organisms that cause common nosocomial infections to the infections they cause.
34. Describe types of patient isolation used in health-care facilities.
35. Complete statements that describe recommended precautions and guidelines used in surgical suites to reduce the spread of infection.

Application: What the student should be able to do

36. Practice critical thinking: complete a case study on immunity and infection. (Assignment Sheet 1)

Module 4: Tissues, Membranes, and Wound Healing

Related information: What the student should know

1. Define the term *tissue*.
 2. Match the basic types of tissue to their correct descriptions.
 3. State the functions of the basic types of tissue.
 4. Complete statements that describe the characteristics of the epithelium.
 5. Define the types of epithelial tissue as classified by shape.
 6. Define the types of epithelial tissue as classified by tissue-layer arrangement.
 7. Match the classes of epithelial tissue to their correct functions.
 8. Match the types of connective tissue to their correct functions.
 9. Define the basic types of nerve tissue.
 10. State the functions of the basic parts of a neuron.
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Module Set I: Introduction to Anatomy and Physiology

Module 4: Tissues, Membranes, and Wound Healing (continued)

Related information: What the student should know (continued)

11. Complete statements that describe how neurons function in the nervous system.
12. State the functions of the four types of neuroglia.
13. Describe the factors that determine muscle-tissue classifications.
14. Match types of muscle contractions to their correct definitions.
15. Define the term *neuromuscular excitability*.
16. Complete statements that describe the neuromuscular-excitability response.
17. State the locations of the main types of membranes.
18. State the functions of the main types of membranes.
19. Define the term *organ*.
20. List the types of tissues and membranes found in selected organs.
21. Complete statements that describe how organ systems function.
22. Match terms that describe abnormalities in organ development to their correct definitions.
23. Define the types of injuries that can damage tissue.
24. Match the types of traumatic wounds to their correct definitions.
25. Describe the causes of the characteristics of the inflammation response.
26. Complete statements that describe the phases in the body's healing response.
27. Distinguish among statements that describe the types of treatment responses in the treatment of wounds.
28. Describe the factors that affect the wound-healing process.
29. Define factors that present possible complications to the wound-healing process.
30. Match the classifications of surgical wounds to their correct descriptions.

Application: What the student should be able to do

31. Practice critical thinking: complete case studies that consider how tissues and membranes function to maintain the body as a whole. (Assignment Sheet 1)
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Anatomy and Physiology

Module Set II: Major Body Systems

Instructional/Task Analysis

Module 1: Integumentary System

Related information: What the student should know

1. Define the term *integument*.
2. List the major structures that make up the integument.
3. Complete statements that describe the characteristics of the skin.
4. List the functions of the skin.
5. Describe the major structures of the skin.
6. Match the layers of the epidermis to their correct descriptions.
7. Distinguish between descriptions of the layers of the dermis.
8. Define the term *auxiliary appendage*.
9. Complete statements that describe the characteristics of hair.
10. Complete statements that describe the characteristics of nails.
11. State the functions of the glands located in the skin.
12. List the types of nerve endings found in the skin.
13. Label the major structures of the integument.
14. Match common disorders and abnormalities of the integument to their correct definitions.

Application: What the student should be able to do

15. Practice critical thinking: investigate skin cancer. (Assignment Sheet 1)
16. Practice critical thinking: investigate burns. (Assignment Sheet 2)

Module 2: Skeletal System

Related information: What the student should know

1. Define the term *skeletal system*.
 2. State the functions of the skeletal system.
 3. Distinguish between phrases that describe the characteristics of bone and cartilage.
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Module Set II: Major Body Systems

Module 2: Skeletal System (cont.)

Related information: What the student should know (cont.)

4. List the major components of bones.
 5. Complete statements that describe the types of bones as classified by their location and structure.
 6. State the characteristics of bone marrow.
 7. Define the major structures of a long bone.
 8. Label the major structures of a long bone.
 9. Match the long bones of the skeleton to their correct definitions.
 10. Define terms that describe the cavities and processes of bones.
 11. Describe the major divisions of the human skeleton.
 12. Label the major components of the anterior and posterior axial skeleton.
 13. Label the major bones of the anterior and posterior appendicular skeleton.
 14. Define the major bones and structures of the cranium, face, and ear.
 15. Label the major bones and structures of the cranium, face, and ear.
 16. State the characteristics of the hyoid bone.
 17. Define the regions and the major bones and structures of the vertebral column.
 18. Label the regions and the major bones and structures of the vertebral column.
 19. Complete statements that describe the characteristics of the ribs and sternum.
 20. Label the major bones and structures of the ribs and sternum.
 21. Define the term *articular system*.
 22. State the functions of the articular system.
 23. Complete statements that describe the major structures and substances of the articular system.
 24. Distinguish among phrases that describe the types of articulations.
 25. Describe types of amphiarthrosis articulations.
 26. Match types of diarthrosis articulations to their correct descriptions.
 27. Match common disorders and abnormalities of the skeletal system to their correct definitions.
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Module 2: Skeletal System (cont.)

Application: What the student should be able to do

28. Classify bone fractures. (Assignment Sheet 1)
 29. Practice critical thinking: research the current medical understanding of the causes and treatments of rheumatoid arthritis. (Assignment Sheet 2)
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Module 3: Muscular System

Related information: What the student should know

1. Define the term *muscular system*.
 2. State the functions of the muscular system.
 3. Describe the major classifications of muscle tissue.
 4. Define the major structures of skeletal muscles.
 5. Label the major structures of skeletal muscles.
 6. Complete statements that describe the characteristics of the bone/muscle attachments of skeletal muscles.
 7. Complete statements that describe how skeletal muscles function.
 8. Define terms that describe the functional characteristics of muscle tissue.
 9. State the actions performed by the types of muscles as classified by their actions.
 10. Define terms that describe how muscles function during coordinated movement.
 11. State the functions of the major muscle groups.
 12. State the functions of the major muscles of the neck, head, and face.
 13. Label the major muscles of the neck, head, and face.
 14. State the functions of the major muscles of the torso.
 15. Label the major muscles of the torso.
 16. State the functions of the major muscles of the arms.
 17. Label the major muscles of the arms.
 18. State the functions of the major muscles of the legs.
 19. Label the major muscles of the legs.
 20. Match common disorders and abnormalities of the muscular system to their correct definitions.
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Module Set II: Major Body Systems

Module 3: Muscular System (cont.)

Application: What the student should be able to do

21. Practice critical thinking: determine common intramuscular injection sites. (Assignment Sheet 1)
 22. Practice critical thinking: report on disorders and abnormalities of the muscular system. (Assignment Sheet 2)
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Module 4: Nervous System

Related information: What the student should know

1. Define the term *nervous system*.
 2. State the functions of the nervous system.
 3. Describe the major subsystems of the nervous system.
 4. Describe the major subsystems of the peripheral nervous system.
 5. Describe the major subsystems of the autonomic nervous system.
 6. Define the term *nerve tissue*.
 7. Define the basic types of nerve tissue.
 8. State the functions of the major structures of a neuron.
 9. Label the major structures of a neuron.
 10. Define the term *nerve fiber*.
 11. Define the major structures of a nerve fiber.
 12. Label the major structures of a nerve fiber.
 13. Match types of neurons to their correct descriptions.
 14. Complete statements that describe the transmission of nerve impulses.
 15. Complete statements that describe a reflex arc.
 16. Label the major structures of a reflex arc.
 17. Describe the stages in the regeneration of a peripheral nerve.
 18. State the functions of the types of neuroglia.
 19. List the major structures within the spinal canal.
 20. Complete statements that describe the structure and functioning of the spinal cord.
 21. State the function of cerebrospinal fluid.
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Module 4: Nervous System (cont.)

Related information: What the student should know (cont.)

22. List the components of cerebrospinal fluid.
23. Define the major structures of the meninges.
24. Define the primary divisions of the brain.
25. Label the primary divisions of the brain.
26. Define the major structures of the forebrain and the hindbrain.
27. Label the major structures of the forebrain and the hindbrain.
28. Define the terms *hemisphere*, *sulcus*, *fissure*, *lobe*, and *ventricle*.
29. Define the lobes of the cerebrum.
30. Define the fissures of the cerebrum.
31. Label the visible lobes and fissures of the cerebrum.
32. Label the functional areas of the brain.
33. Complete statements that describe the structure and functioning of the ventricles of the brain.
34. Label the ventricles of the brain and the horns of the lateral ventricles.
35. State the number and functions of the cranial nerves of the peripheral nervous system.
36. Define the term *plexus*.
37. Label the plexuses of the spinal cord.
38. Describe the number and origin of the spinal nerves.
39. List the major nerves that arise from each plexus.
40. Match common disorders and abnormalities of the nervous system to their correct definitions.

Application: What the student should be able to do

41. Practice critical thinking: investigate nerve-block anesthetics. (Assignment Sheet 1)

Module 5: Endocrine System

Related information: What the student should know

1. Define the term *endocrine system*.
 2. List the primary physiological characteristics of the body that are affected by the hormones of the endocrine system.
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Module Set II: Major Body Systems

Module 5: Endocrine System (cont.)

Related information: What the student should know (cont.)

3. Match the major glands of the endocrine system to their correct definitions.
4. Label the major glands of the endocrine system.
5. Complete statements that describe the structure and function of the pituitary gland.
6. Match the primary hormones of the pituitary gland to their correct functions.
7. Define common disorders and abnormalities associated with the hormones of the pituitary gland.
8. Complete statements that describe the function of the thyroid gland.
9. Define common disorders and abnormalities associated with the hormones of the thyroid gland.
10. Complete statements that describe the function of the parathyroid glands.
11. Define common disorders and abnormalities associated with the hormones of the parathyroid glands.
12. Complete statements that describe the structure and function of the adrenal glands.
13. Match the primary hormones of the adrenal glands to their correct functions.
14. Define common disorders and abnormalities associated with the hormones of the adrenal glands.
15. Complete statements that describe the function of the gonads.
16. Describe the common disorders and abnormalities associated with the hormones of the gonads.
17. Complete statements that describe the function of the pancreas (islets of Langerhans).
18. Define common disorders and abnormalities associated with the hormones of the pancreas (islets of Langerhans).
19. Complete statements that describe the function of the pineal body.
20. Complete statements that describe the function of the thymus gland.
21. Complete statements that describe the endocrine functions of organs in the body that are not classified as endocrine glands.

Application: What the student should be able to do

22. Practice critical thinking: complete case studies that determine medical interventions for endocrine disorders. (Assignment Sheet 1)

Module 6: Special Senses

Related information: What the student should know

1. Define the term *special sense*.
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Module 6: Special Senses (cont.)

Related information: What the student should know (cont.)

2. Describe the stages in a sensory response.
 3. Define the major special senses.
 4. Define other senses that may also be associated with the special senses.
 5. Define the major layers and cavities of the eye.
 6. Complete statements that describe the major muscles of the eye.
 7. Define the major structures of the eye.
 8. Label the major structures of the eye.
 9. Complete statements that describe the sensory response for vision.
 10. Define the accessory structures of the eye.
 11. Match common disorders and abnormalities of the eye to their correct definitions.
 12. Define the major sections of the ear.
 13. Describe the types of conduction used to transmit sound within the ear.
 14. Define the major structures of the ear that function in sound transmission (hearing).
 15. Define the major structures of the ear that function to maintain equilibrium.
 16. Describe the function of the branches of the acoustic nerve (cranial nerve VIII).
 17. Label the major sections and structures of the ear.
 18. Define common disorders and abnormalities of the ear.
 19. Complete statements that describe the sensory response for the sense of smell.
 20. Define common disorders and abnormalities associated with the sense of smell.
 21. Complete statements that describe the sensory response for the sense of taste.
 22. Define the common disorder associated with the sense of taste.
 23. Label the major structures of the nose and mouth associated with the senses of smell and taste.
 24. Complete statements that describe the sensory responses for the senses of touch and pain.
 25. Define common disorders and abnormalities associated with the senses of touch and pain.
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Module Set II: Major Body Systems

Module 6: Special Senses (cont.)

Application: What the student should be able to do

26. Practice critical thinking: investigate the functioning of the special senses. (Assignment Sheet 1)
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Module 7: Circulatory System—Blood

Related information: What the student should know

1. Define the term *circulatory system*.
2. State the functions of the circulatory system.
3. List the subsystems of the circulatory system.
4. Match the major organs of the circulatory system to their correct definitions.
5. Define the major components of blood.
6. Complete statements that describe the normal physical characteristics of blood.
7. List the major components of blood plasma.
8. Complete statements that describe the characteristics of erythrocytes.
9. Complete statements that describe the characteristics of leukocytes.
10. Complete statements that describe the characteristics of thrombocytes.
11. Define the term *hematology*.
12. Define common tests used in hematologic studies.
13. State the normal parameters of the common tests used in hematologic studies.
14. Complete statements that describe the characteristics of the Rh blood-group factor.
15. Complete statements that describe the characteristics of the human blood groups (blood types).
16. Describe the factors that must be considered when blood is matched for a transfusion.
17. Complete statements that describe the blood-clotting process (blood coagulation).
18. Match common disorders and abnormalities of the blood to their correct definitions.

Application: What the student should be able to do

19. Practice critical thinking: complete case studies on the role of blood in maintaining good health. (Assignment Sheet 1)
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Module 8: Circulatory System—Cardiac

Related information: What the student should know

1. Define the term *cardiovascular system*.
2. Complete statements that describe the size and position of the heart.
3. List the major structures of the heart.
4. Define the tissue layers of the heart.
5. Complete statements that describe the characteristics of the chambers of the heart.
6. Complete statements that describe the characteristics of the major veins of the heart.
7. Complete statements that describe the characteristics of the major arteries of the heart.
8. Complete statements that describe the characteristics of the major valves of the heart.
9. Label the major structures of the heart.
10. Define the term *cardiopulmonary circulation*.
11. Arrange in order the sequence of blood flow in cardiopulmonary circulation.
12. Complete statements that describe the characteristics of the coronary arteries and veins.
13. Define the term *conduction system of the heart*.
14. Define the major structures of the conduction system of the heart.
15. State the sequence for the conduction of a contraction of the heart in a heartbeat.
16. Define the sounds of a heartbeat.
17. Match common disorders and abnormalities of the heart to their correct definitions.

Application: What the student should be able to do

18. Practice critical thinking: describe and evaluate types of cardiac pacemakers. (Assignment Sheet 1)

Module 9: Circulatory System—Vascular

Related information: What the student should know

1. Define the term *vascular system*.
 2. List the major structures of the vascular system.
 3. Define the term *systemic circulation system*.
 4. State the sequence of blood circulation through the major structures of the systemic circulation system.
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Module Set II: Major Body Systems

Module 9: Circulatory System—Vascular (cont.)

Related information: What the student should know (cont.)

5. Define the tissue layers of an artery.
6. Label the tissue layers of an artery.
7. Complete statements that describe the characteristics of arteries.
8. Complete statements that describe the characteristics of the aorta in the systemic arterial circulation system.
9. Define the major arteries that extend from the aorta.
10. Label the major arteries of the systemic circulation system.
11. Complete statements that describe the characteristics of capillaries.
12. Define the tissue layers of a vein.
13. Label the tissue layers of a vein.
14. Complete statements that describe the characteristics of veins.
15. Define the major veins of the systemic circulation system.
16. Label the major veins of the systemic circulation system.
17. Define the term *portal circulation system*.
18. Complete statements that describe the characteristics of the portal circulation system.
19. Define the term *pulse point*.
20. State the normal pulse rate of a healthy adult at rest.
21. Label the common pulse points.
22. Define the term *blood pressure*.
23. Complete statements that describe how blood pressure is measured.
24. Describe the factors that affect blood pressure.
25. Complete statements that describe the characteristics of the fetal circulation system.
26. Define common disorders and abnormalities of the vascular system.

Application: What the student should be able to do

27. Practice critical thinking: determine cause-and-effect relationships related to the circulatory system. (Assignment Sheet 1)
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Module 10: Lymphatic System

Related information: What the student should know

1. Define the term *lymphatic system*.
2. List the major structures of the lymphatic system.
3. Label the major structures of the lymphatic system.
4. State the sequence of lymph circulation through the major structures of the lymphatic system.
5. Complete statements that describe the characteristics of lymph and its movement through the body.
6. Complete statements that describe the characteristics of lymphatic capillaries.
7. Complete statements that describe the characteristics of lymphatic vessels.
8. Complete statements that describe the characteristics of lymph nodes.
9. Define the major groups of lymph nodes.
10. Label the major groups of lymph nodes.
11. Define the major lymphatic ducts.
12. Label the major lymphatic ducts.
13. Define the term *lymph nodule*.
14. Complete statements that describe the characteristics of the spleen.
15. Complete statements that describe the characteristics of the thymus.
16. Complete statements that describe the characteristics of the tonsils.
17. Label the tonsils of the mouth and throat.
18. Define common disorders and abnormalities of the lymphatic system.

Application: What the student should be able to do

19. Practice critical thinking: investigate the involvement of the lymphatic system in interventions for cancer. (Assignment Sheet 1)

Module 11: Respiratory System

Related information: What the student should know

1. Define the term *respiratory system*.
 2. Complete statements that describe the characteristics of pulmonary ventilation.
 3. Define terms used to measure the various aspects of respiratory volume.
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Module Set II: Major Body Systems

Module 11: Respiratory System (cont.)

Related information: What the student should know (cont.)

4. Complete statements that describe the portions of the thorax that are related to the lungs.
5. Define the major organs and structures of the respiratory system.
6. Label the major organs and structures of the respiratory system.
7. Complete statements that describe the characteristics and structures of the nose that are related to the respiratory system.
8. Complete statements that describe the characteristics of the pharynx that are related to the respiratory system.
9. Complete statements that describe the characteristics and structures of the larynx that are related to the respiratory system.
10. Complete statements that describe the characteristics and structures of the trachea.
11. Complete statements that describe the characteristics and structures of the bronchi.
12. Label the major structures of the bronchi.
13. Complete statements that describe the characteristics and structures of the lungs.
14. Label the major external structures of the lungs.
15. Complete statements that describe the characteristics and structures of the pleura.
16. Label the major structures of the pleura.
17. Complete statements that describe the muscles that change the size of the thorax.
18. Match common disorders and abnormalities of the respiratory system to their correct definitions.

Application: What the student should be able to do

19. Practice critical thinking: investigate lung-transplant procedures. (Assignment Sheet 1)
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Module 12: Digestive System

Related information: What the student should know

1. Define the term *digestive system*.
 2. State the functions of the digestive system.
 3. Define the term *alimentary tract*.
 4. Define the organs and structures of the alimentary tract.
 5. Define the term *accessory glands*.
 6. Define the accessory glands of the digestive system.
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Module 12: Digestive System (cont.)

Related information: What the student should know (cont.)

7. Label the major organs and structures of the digestive system.
8. Complete statements that describe the characteristics and structures of the mouth.
9. Label the major structures of the mouth.
10. Complete statements that describe the characteristics and structures of the teeth.
11. Label the major structures of a tooth.
12. Define the types of teeth as classified by location and function.
13. Label the types of teeth as classified by location and function.
14. Complete statements that describe the characteristics and structures of the pharynx that relate to the digestive system.
15. Complete statements that describe the characteristics and structures of the esophagus.
16. Define the major structures of the stomach.
17. Label the major structures of the stomach.
18. Complete statements that describe the characteristics and functions of the stomach.
19. Define the major structures of the small intestine.
20. Complete statements that describe the characteristics and functions of the small intestine.
21. Define the major structures of the large intestine.
22. Define the sections and flexures of the colon.
23. Label the major structures of the large intestine.
24. Complete statements that describe the characteristics and functions of the large intestine.
25. Complete statements that describe the characteristics and structures of the liver.
26. List the functions of the liver.
27. Complete statements that describe the characteristics and structures of the pancreas.
28. Complete statements that describe the characteristics and structures of the gallbladder.
29. Label the major structures of the liver, pancreas, and gallbladder.
30. Match common disorders and abnormalities of the alimentary tract to their correct definitions.

Application: What the student should be able to do

31. Practice critical thinking: investigate surgical requirements for the digestive system. (Assignment Sheet 1)
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Module Set II: Major Body Systems

Module 13: Urinary System

Related information: What the student should know

1. Define the term *urinary system*.
2. State the functions of the urinary system.
3. Define the major organs and structures of the urinary system.
4. Label the major organs and structures of the urinary system.
5. Complete statements that describe the characteristics and external structure of the kidneys.
6. Define the major internal macroscopic structures of a kidney.
7. Label the major internal macroscopic structures of a kidney.
8. Complete statements that describe the characteristics of the internal microscopic structures of a kidney.
9. Label the major microscopic structures of a nephron.
10. State functions of the kidneys.
11. Complete statements that describe the characteristics and structure of the ureters.
12. Complete statements that describe the characteristics and structure of the urinary bladder.
13. Complete statements that describe the characteristics and structure of the female urethra.
14. Complete statements that describe the characteristics and structure of the male urethra.
15. Complete statements that describe the normal physical characteristics of urine.
16. Complete statements that describe the processes for producing and expelling urine.
17. List the common abnormal constituents of urine.
18. Complete statements that describe the characteristics of calculi in the urinary tract.
19. Define common disorders and abnormalities of the urinary system.

Application: What the student should be able to do

20. Practice critical thinking: investigate treatment options for end-stage renal disease. (Assignment Sheet 1)

Module 14: Reproductive System—Male

Related information: What the student should know

1. Define the term *male reproductive system*.
 2. State the functions of the male reproductive system.
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Module 14: Reproductive System—Male (cont.)

Related information: What the student should know (cont.)

3. Define the term *semen*.
4. Define the major glands and structures of the male reproductive system.
5. Label the major glands and structures of the male reproductive system.
6. Complete statements that describe the characteristics and structure of the scrotum.
7. Complete statements that describe the characteristics and structure of the testes.
8. Complete statements that describe the characteristics and structure of the epididymis.
9. Complete statements that describe the characteristics and structure of the vas deferens.
10. Complete statements that describe the characteristics and structure of the seminal vesicles.
11. Complete statements that describe the characteristics and structure of the prostate gland.
12. Complete statements that describe the characteristics and structure of the bulbourethral glands.
13. Complete statements that describe the characteristics and structure of the penis.
14. Describe the stages of development of the male reproductive organs.
15. Match common disorders and abnormalities of the male reproductive system to their correct definitions.

Application: What the student should be able to do

16. Practice critical thinking: investigate a topic related to male sexual dysfunction. (Assignment Sheet 1)

Module 15: Reproductive System—Female

Related information: What the student should know

1. Define the term *female reproductive system*.
 2. Define the term *ovum*.
 3. Define the term *fertilization*.
 4. State the functions of the female reproductive system.
 5. List the major divisions of the female reproductive system.
 6. Define the major organs and structures of the internal female reproductive system.
 7. Label the major internal organs and structures of the female reproductive system.
 8. Complete statements that describe the characteristics and structure of the ovaries.
 9. Complete statements that describe the characteristics and structure of the fallopian tubes.
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Module Set II: Major Body Systems

Module 15: Reproductive System—Female (cont.)

Related information: What the student should know (cont.)

10. Complete statements that describe the characteristics and structure of the uterus.
11. Complete statements that describe the characteristics and structure of the vagina.
12. Complete statements that describe the major structures of the external female reproductive system.
13. Label the major structures and substructures of the internal female reproductive system.
14. Label the major structures of the external female reproductive system.
15. Complete statements that describe the characteristics and structure of the breasts.
16. Label the major structures of a female breast.
17. Describe the stages of development of the female reproductive organs.
18. Complete statements that describe menstruation and the menstrual cycle.
19. Define terms associated with irregularities of the menstrual cycle.
20. Define the term *surgical menopause*.
21. Complete statements that describe the characteristics of pregnancy.
22. Complete statements that describe the characteristics of fetal development.
23. Describe the stages of labor and delivery.
24. Define terms that describe types of abnormal deliveries.
25. Complete statements that describe the characteristics of genetics and heredity.
26. Define common disorders and abnormalities of the female reproductive system.

Application: What the student should be able to do

27. Practice critical thinking: complete case studies that evaluate infant health and determine required care. (Assignment Sheet 1)
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