

A Cosmetologist's Introduction to Anatomy and Physiology

Instructional/Task Analysis

Related Information: What the Student Should Know

Application: What the Student Should Be Able to Do

Module 1: Organization of the Human Body

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| 1. The terms <i>anatomy</i> and <i>physiology</i> | 7. Complete the crossword puzzle of terms (Objectives 1–6) |
| 2. General regions of the body | 8. Construct a model of an organ of the human body |
| 3. Major body structures in order of increasing complexity | 9. Analyze a cosmetology scenario |
| 4. Functions of the major organ systems | 10. Complete Module 1 review |
| 5. Major organs and structures in each of the major organ systems | |
| 6. Primary physiological characteristics of the body that are affected by the hormones of the endocrine system | |

Module 2: Biochemistry and Microbiology

1. The terms *biochemistry* and *microbiology*
2. The role of chemistry in human health
3. The term *homeostasis*
4. The terms *element* and *atom*
5. Parts of an atom
6. The term *molecule*
7. The terms *compound*, *mixture*, and *solution*
8. Primary role of each of the principle elements and compounds in the human body
9. Role of electrolytes in human health
10. Role of acids and bases in human health
11. Cell theory
12. Principal types of protoplasm
13. Major parts of a cell

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Module 2: Biochemistry and Microbiology (continued)

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| 14. Functions of the major parts of a cell | 25. Complete the crossword puzzle of terms (Objectives 1–10) |
| 15. Major parts of a cell nucleus | 26. Complete the crossword puzzle of terms (Objectives 11–18) |
| 16. Specialized structures in cells | 27. Construct a model of a typical cell |
| 17. Functions of the specialized structures in cells | 28. Complete the crossword puzzle of terms (Objectives 19–24) |
| 18. Functions of a cell | 29. Develop a presentation on bacteria, viruses, fungi, or parasites |
| 19. Classes of microorganisms | 30. Analyze cosmetology scenarios |
| 20. Class of microorganisms as classified by their shape | 31. Complete Module 2 review |
| 21. Characteristics of bacteria | |
| 22. Characteristics of viruses | |
| 23. Characteristics of fungi | |
| 24. Common parasites that afflict humans | |

Module 3: Infection, Immunology, and Sanitation

1. The term *infection*
2. The effects of infection on a human host
3. Methods used to reduce the spread of infection
4. Types of infections and diseases
5. Role of the body's portals of entry and portals of exit in the spread of infectious diseases
6. Functions of the body's physical barriers to infection
7. Types of immunity
8. Methods used to control the spread of microorganisms
9. Reasons certain industries must control the growth of microorganism
10. Types of antimicrobial-control methods

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Module 3: Infection, Immunology, and Sanitation (continued)

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| 11. Factors that contribute to the spread of nosocomial infections | 13. Complete the crossword puzzle of terms (Objectives 1–4) |
| 12. Organisms that cause common nosocomial infections | 14. Complete the crossword puzzle of terms (Objectives 5–12) |
| | 15. Conduct a sanitation inspection of the salon/laboratory and classroom |
| | 16. Analyze cosmetology scenarios |
| | 17. Complete Module 3 review |

Module 4: Tissues

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| 1. The term <i>tissue</i> | 11. Complete the crossword puzzle of terms (Objectives 1–10) |
| 2. Basic types of tissue and their descriptions | 12. Develop a presentation on basic tissue of the human body |
| 3. Functions of the basic types of tissue | 13. Complete Module 4 review |
| 4. Types of connective tissue and their functions | |
| 5. Basic types of nerve tissue | |
| 6. Functions of the basic parts of a neuron | |
| 7. How neurons function in the nervous system | |
| 8. Factors that determine muscle-tissue classifications | |
| 9. The term <i>organ</i> | |
| 10. How organ systems function | |

Module 5: Integumentary System

1. The term *integument*
2. Major structures that make up the integument
3. Characteristics of the skin
4. Functions of the skin
5. Major structures of the skin

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Module 5: Integumentary System (continued)

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| 6. Layers of the epidermis | 18. Complete the crossword puzzle of terms (Objectives 1–7) |
| 7. Layers of the dermis | 19. Complete the crossword puzzle of terms (Objectives 8–14) |
| 8. The term <i>auxiliary appendage</i> | 20. Complete the crossword puzzle of terms (Objectives 15 and 16) |
| 9. Characteristics of hair | 21. Complete the crossword puzzle of terms (Objective 17) |
| 10. Characteristics of nails | 22. Create a graphic organizer |
| 11. Functions of the glands in the skin | 23. Review the structures, layers, and glands of the skin |
| 12. Types of nerve endings found in the skin | 24. Analyze cosmetology scenarios |
| 13. Identification of the major structures of the integument | 25. Complete Module 5 review |
| 14. Common disorders and diseases of the scalp and hair | |
| 15. Common disorders and diseases of the sebaceous glands | |
| 16. Common disorders and diseases of the skin | |
| 17. Common disorders and diseases of the hand and nails | |

Module 6: Skeletal System

1. The term *skeletal system*
2. Functions of the skeletal system
3. Types of bones as classified by their location
4. The long bones of the skeleton
5. Major divisions of the human skeleton
6. Major bones of the anterior and posterior appendicular skeleton
7. Descriptions of the major bones of the cranium and face
8. Identification of the major bones of the cranium and face
9. Characteristics of the hyoid bone

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Module 6: Skeletal System (continued)

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| 10. Descriptions of the regions and the major bones and structures of the vertebral column | 14. Complete the crossword puzzle of terms (Objectives 1–6) |
| 11. Identification of the regions and the major bones and structures of the vertebral column | 15. Complete the crossword puzzle of terms (Objectives 7–13) |
| 12. Characteristics of the ribs and sternum | 16. Locate and identify bones of the cranium |
| 13. Major bones and structures of the ribs and sternum | 17. Locate and identify bones of the face |
| | 18. Analyze cosmetology scenarios |
| | 19. Complete Module 6 review |

Module 7: Muscular System

1. The term *muscular system*
2. Functions of the muscular system
3. Major classifications of muscle tissue
4. Major structures of skeletal muscles and their definitions
5. Identification of the major structures of skeletal muscles
6. Characteristics of the bone/muscle attachments of skeletal muscles
7. How skeletal muscles function
8. Terms that describe the functional characteristics of muscle tissue
9. Types of muscles as classified by their actions
10. Functions of the major muscle groups
11. Functions of the major muscles of the head, face, and neck
12. Identification of the major muscles of the head, face, and neck
13. Functions of the major muscles of the torso
14. Identification of the major muscles of the torso

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Module 7: Muscular System (continued)

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| 15. Functions of the major muscles of the arm | 19. Complete the crossword puzzle of terms (Objectives 1–8) |
| 16. Identification of the major muscles of the arm | 20. Complete the crossword puzzle of terms (Objective 9) |
| 17. Functions of the major muscles of the legs | 21. Complete the crossword puzzle of terms (Objectives 10–12) |
| 18. Identification of the major muscles of the legs | 22. Locate and identify major muscles of the head, face, and neck |
| | 23. Complete the crossword puzzle of terms (Objectives 13–16) |
| | 24. Complete the crossword puzzle of terms (Objectives 17–18) |
| | 25. Analyze cosmetology scenarios |
| | 26. Complete Module 7 review |

Module 8: Nervous System

1. The term *nervous system*
2. Functions of the nervous system
3. Major subsystems of the nervous system
4. Major subsystems of the peripheral nervous system
5. Major subsystems of the autonomic nervous system
6. The term *nerve tissue*
7. Basic types of nerve tissue
8. Functions of the major structures of a neuron
9. Identification of the major structures of a neuron
10. Types of neurons
11. Description of a reflex arc
12. Major structures within the spinal canal

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Module 8: Nervous System (continued)

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| 13. Structure and function of the spinal cord | 15. Complete the crossword puzzle of terms (Objectives 1–5) |
| 14. Functions of the nerves of the head, face, and neck | 16. Complete the crossword puzzle of terms (Objectives 6–13) |
| | 17. Complete the crossword puzzle of terms (Objective 14) |
| | 18. Participate in a "Face Off" |
| | 19. Analyze cosmetology scenarios |
| | 20. Complete Module 8 review |

Module 9: Circulatory System

1. The term *circulatory system*
2. Functions of the circulatory system
3. Subsystems of the circulatory system
4. Major organs of the circulatory system
5. Major components of blood
6. The normal physical characteristics of blood.
7. Major components of blood plasma
8. The term *cardiovascular system*
9. Size and position of the heart
10. Major structures of the heart
11. Characteristics of the chambers of the heart
12. Characteristics of the major veins of the heart
13. Characteristics of the major arteries of the heart
14. Characteristics of the major valves of the heart
15. Identification of the major structures of the heart

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Module 9: Circulatory System (continued)

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| 16. The term <i>vascular system</i> | 25. Complete the crossword puzzle of terms (Objectives 1–7) |
| 17. Major structures of the vascular system | |
| 18. Major arteries that extend from the aortic arch | 26. Complete the crossword puzzle of terms (Objectives 8–24) |
| 19. Identification of the major arteries of the systemic circulation system | 27. Construct a model of the human heart |
| 20. Characteristics of capillaries | 28. Research the route of a blood cell through the circulatory system |
| 21. Characteristics of veins | 29. Analyze cosmetology scenarios |
| 22. The term <i>pulse point</i> | 30. Complete Module 9 review |
| 23. The term <i>blood pressure</i> | |
| 24. The term <i>lymphatic system</i> | |

Module 10: Respiratory, Digestive, and Urinary Systems

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| 1. The term <i>respiratory system</i> | 12. Complete the crossword puzzle of terms (Objectives 1–11) |
| 2. Characteristics of pulmonary ventilation | |
| 3. Major organs and structures of the respiratory system | 13. Participate in a "Face Off" |
| 4. The term <i>digestive system</i> | 14. Analyze cosmetology scenarios |
| 5. Functions of the digestive system | 15. Complete Module 10 review |
| 6. The term <i>accessory glands</i> | |
| 7. Major organs and structures of the digestive system | |
| 8. Functions of the liver | |
| 9. The term <i>urinary system</i> | |
| 10. Functions of the urinary system | |
| 11. Major organs and structures of the urinary system | |