

Basic Anatomy

Course Outcome Summary

Course Information

Organization	Moraine Park Technical College
Developers	Ruth Wise and Karen Johnson
Development Date	5/20/2001
Revised Date	3/29/2007
Course Number	806-189
Potential Hours of Instruction	54
Total Credits	3

Description

Examines concepts of anatomy and physiology as they relate to health careers. Learners correlate anatomical and physiological terminology to all body systems. This course is intended for programs that involve indirect patient care, i.e., Health Information Technology, Clinical Coding, Medical Transcription, etc. This is not an acceptable course in health-related programs that involve direct patient care, i.e., Nursing, Radiologic Technology, Surgical Technology, etc. This course is not acceptable as a course substitution for General Anatomy 10-806-177.

Types of Instruction

Instruction Type	Contact Hours	Outside Hours	Credits
Classroom Presentation	54	108	3

Textbooks

Valerie C. Scanlon and Tina Sanders. *Essentials of Anatomy and Physiology*. F. A. Davis Company. 1999. **Edition:** Third Edition. **ISBN:** 0-8036-0407-6.

Valerie C. Scanlon and Tina Sanders. *Essentials of Anatomy and Physiology Student Workbook*. F. A. Davis Company. 1999. **Edition:** Third. **ISBN:** 0-8036-0408-4.

Ruth Wise and Karen Johnson. *Anatomy and Physiology Survey Module*. Moraine Park Technical College.

Exit Learning Outcomes

Core Abilities

Work cooperatively.

Learner completes assigned tasks for team/group work.

Learner uses collaborative strategies to complete tasks.

Learner exchanges information, ideas, and opinions in a team/group setting.

Act responsibly.

Learner completes assigned tasks according to prescribed deadlines.

Learner completes assigned tasks according to prescribed criteria.

Learner adheres to established attendance criteria.

Think critically and creatively.

Learner uses criteria for evaluation.

Learner distinguishes between fact and opinion.

Learner synthesizes information from a variety of sources.

Learner uses problem-solving and decision-making strategies.

Communicate clearly.

Learner uses bias-free language.

Learner uses language that is free of obscenities.

Learner applies listening skills.

Learner applies standard rules of language structure including grammar, spelling, and punctuation.

Work productively.

Learner produces work consistent with established criteria.

Learner completes assigned tasks according to established conditions.

Learn effectively.

Learner uses resources to meet learning needs.

Learner organizes information.

Learner produces evidence of learning.

Competencies

1. **Explain concept of homeostasis as it relates to anatomy and physiology.**
2. **Relate body structures to body systems and functions.**
3. **Relate anatomical terminology to body regions, body and organ planes, and body cavities.**
4. **Examine basic concepts of chemistry.**
5. **Compare cellular transport mechanisms.**
6. **Examine major cellular functions.**
7. **Characterize primary tissue types of body.**
8. **Relate integumentary components to integumentary functions.**
9. **Evaluate the inflammation process.**
10. **Compare the axial and appendicular portions of human skeleton.**
11. **Assess growth of bone tissue.**
12. **Correlate activities at neuromuscular junction with the sliding filament theory.**
13. **Compare divisions of nervous system by location, structure, and functions.**
14. **Compare sensory receptors of body tissues.**
15. **Relate hormone actions to tissues.**
16. **Analyze composition and functions of blood.**
17. **Analyze regulation of blood flow.**
18. **Evaluate mechanisms that regulate heart rate.**
19. **Analyze components of lymphatic system.**
20. **Compare types of immunity.**
21. **Evaluate ventilation.**
22. **Analyze digestion and absorption.**
23. **Assess the urinary system's role in maintaining homeostasis of blood volume, blood pressure, and blood pH.**
24. **Differentiate between stages of menstrual cycle.**
25. **Analyze stages of spermatogenesis.**
26. **Correlate microbiology terminology with human disease processes.**

Grading Information

Grading Rationale

This is a competency-based course. That means that ALL units of study must be completed satisfactorily in order to pass. This includes tests, quizzes, and learning activities as outlined in your module.

A total of 1,000 points can be earned. The point value of each required activity is explained as it appears in the module.

Your grade will be computed according to the following scale:

930 - 1000 points = A

850 - 929 points = B

770 - 849 points = C

Incomplete work = INC (Can be corrected)

Unacceptable = NC (Cannot be corrected)

SCORING MAP

<u>ARTICLE</u>	<u>POINT VALUE</u>	<u>TOTAL</u>
Quizzes	5 @ 40 pts. Each	200
Unit Exams	5 @ 100 pts. Each	500
Final Exam	1 @ 100 pts.	100
Table of Normal Values		25
Current Events Article		25
Presentation		100
Neuron Diagram		5
Integumentary Diagram		5
Cell Diagram		5
Negative Feedback Diagram		5
Written Assignments	6 @ 5 pts. Each	30
1. Respiratory		
2. Digestive		
3. Blood/Lymph		
4. Reproductive		
5. Microbiology		
6. Body Temperature		
Total Points Possible:		1,000

Grading System:

930 – 1,000 points = A

850 - 929 points = B

770 - 849 points = C

Less than 770 points = NC or INC

Learning Plan 1

Information

Overview

Anatomy and physiology is the foundation for a number of health related occupations. In order to understand what occurs during disease, the basic concepts of normal anatomy and physiology must be realized. Understanding the anatomy of an organ or tissue is critical to understanding the physiology of that organ or tissue.

Target Competencies

Competency

Explain concept of homeostasis as it relates to anatomy and physiology.

Linked Core Abilities

- Work cooperatively.
- Act responsibly.
- Think critically and creatively.
- Communicate clearly.
- Work productively.
- Learn effectively.

Competence will be demonstrated:

- o by active participation in group activities.
- o without the use of notes or textbooks on a written examination.
- o by achieving a 76% or higher on a written examination.

Criteria

- o Comparison includes similarities and differences between anatomy and physiology.
- o Learner provides physiological and anatomical examples of homeostasis.
- o Correlation includes relationship between negative feedback mechanisms and homeostasis.

Learning Objectives

- a. Compare anatomy and physiology.
- b. Identify anatomical and physiological examples of homeostasis.
- c. Correlate concept of negative feedback mechanism to homeostasis.

Competency

Relate body structures to body systems and functions.

Linked Core Abilities

- Work cooperatively.
- Act responsibly.
- Think critically and creatively.
- Communicate clearly.
- Work productively.
- Learn effectively.

Competence will be demonstrated:

- o by active participation in group activities.
- o without the use of notes or textbooks on a written examination.
- o by achieving a 76% or higher on a written examination.

Criteria

- o Learner identifies organs and tissues within each body system.
- o Body's levels of organization are outlined.
- o Terminology associated with body's level of organization is examined.
- o Body functions and body systems are linked.

Learning Objectives

- a. Correlate major body tissues and organs to systems of body.
- b. Outline levels of organization within body from simplest to most complex.
- c. Examine terminology associated with levels of body organization.
- d. Correlate body systems with body functions.

Competency

Relate anatomical terminology to body regions, body and organ planes, and body cavities.

Linked Core Abilities

Work cooperatively.

Act responsibly.

Think critically and creatively.

Communicate clearly.

Work productively.

Learn effectively.

Competence will be demonstrated:

- o by active participation in group activities.
- o without the use of notes or textbooks on a written examination.
- o by achieving a 76% or higher on a written examination.

Criteria

- o Learner demonstrates correct anatomical position.
- o Terminology associated with sections, planes, and body structure positional relationships is applied.
- o Abdominal organs are identified by abdominopelvic cavity regions.
- o Viscera are identified by their specific body cavities.

Learning Objectives

- a. Illustrate correct anatomical position.
- b. Apply terms used to describe relationships of body structures to one another.
- c. Apply terms used to describe sections and planes of body and body structure.
- d. Correlate components of abdominopelvic cavity to specific abdominal regions.
- e. Correlate components of body to their specific body cavities.

Learning Activities

- ____ 1. READ Learning Plan 1 in module prior to class.
- ____ 2. READ Chapter 1 in textbook prior to class.
- ____ 3. COMPLETE pp. 1-10 in workbook prior to class.
- ____ 4. PARTICIPATE in lecture and discussion on learning objectives.
- ____ 5. CREATE and PRESENT posters depicting organs located in abdominopelvic region assigned to team.

Assessment Activities

- ____ 1. COMPLETE multiple choice tests #1 and #2 in workbook.
- ____ 2. CORRECT tests in workbook.

Learning Plan 2

Information

Overview

This learning plan will review major concepts of biology and chemistry that are basic to the understanding of anatomy and physiology. As we learned in the previous learning plan, the cell is the functional unit of each body tissue. The cell falls in a series of structures that make up the organizational units of the body. This learning plan will review the components of a cell and their respective structures, locations and functions. We will also review the building blocks of chemistry that allow a cell to exist.

Target Competencies

Competency

Examine basic concepts of chemistry.

Linked Core Abilities

- Work cooperatively.
- Act responsibly.
- Think critically and creatively.
- Communicate clearly.
- Work productively.
- Learn effectively.

Competence will be demonstrated:

- o by active participation in group activities.
- o without the use of notes or textbooks on a written examination.
- o by achieving a 76% or higher on a written examination.

Criteria

- o Comparison includes similarities and differences between types of chemical bonds.
- o Examination includes the functions and body compartments of water.
- o Components of a solution are characterized by amount, consistency, and function.
- o Concept of homeostasis is applied to pH of body fluids.
- o Comparison includes similarities and differences between RNA and DNA.
- o Role of enzymes in body is examined.

Learning Objectives

- a. Characterize terminology associated with building blocks of chemistry.
- b. Compare types of chemical bonds.
- c. Examine functions and locations of water.
- d. Characterize components of a solution.
- e. Compare oxygen and carbon dioxide.
- f. Identify trace elements.
- g. Correlate pH of body fluids to concept of homeostasis.
- h. Characterize complex molecules by their structure and functions.
- i. Compare RNA and DNA by structure, location and function.
- j. Examine role of enzymes in body functions.

Competency**Compare cellular transport mechanisms.****Linked Core Abilities**

- Work cooperatively.
- Act responsibly.
- Think critically and creatively.
- Communicate clearly.
- Work productively.
- Learn effectively.

Competence will be demonstrated:

- o by active participation in group activities.
- o without the use of notes or textbooks on a written examination.
- o by achieving a 76% or higher on a written examination.

Criteria

- o Components of cell membrane are analyzed.
- o Learner identifies intracellular components.
- o Intracellular components of a cell are related to the functions of a cell.
- o Transport mechanisms of a cell are characterized by action and function.

Learning Objectives

- a. Analyze components of cell membrane.
- b. Identify intracellular components.
- c. Relate cell structures to cell functions.
- d. Characterize types of transport systems used by cells.

Competency**Examine major cellular functions.****Linked Core Abilities**

- Work cooperatively.
- Act responsibly.
- Think critically and creatively.
- Communicate clearly.
- Work productively.
- Learn effectively.

Competence will be demonstrated:

- o by active participation in group activities.
- o without the use of notes or textbooks on a written examination.
- o by achieving a 76% or higher on a written examination.

Criteria

- o Steps of protein synthesis are identified.
- o Comparison includes similarities and differences between mitosis and meiosis.
- o Outcomes or consequences of mitosis and meiosis are compared.

Learning Objectives

- a. Identify steps of protein synthesis
- b. Compare stages of mitosis and meiosis.
- c. Compare outcomes of mitosis and meiosis.

Learning Activities

- ____1. READ Learning Plan 2 in module prior to class.
- ____2. READ Chapters 2 and 3 in textbook prior to class.
- ____3. COMPLETE pp. 14-25 and pp. 30-41 in workbook prior to class.
- ____4. PARTICIPATE in lecture and discussion on learning objectives.
- ____5. CREATE and PRESENT a model of a cell, including an explanation of each part.

Assessment Activities

- ____1. COMPLETE multiple choice tests in workbook.
- ____2. CORRECT tests in workbook.
- ____3. SUBMIT model of cell. (5 points)

Learning Plan 3

Information

Overview

In this learning plan, learners will identify the basic structures, locations and functions of the major body tissues including the primary tissues of the body, glands and membranes. These tissues will provide the building blocks for the body systems that will be covered in the remaining portion of the course.

Target Competencies

Competency

Characterize primary tissue types of body.

Linked Core Abilities

- Work cooperatively.
- Act responsibly.
- Think critically and creatively.
- Communicate clearly.
- Work productively.
- Learn effectively.

Competence will be demonstrated:

- o by active participation in group activities.
- o without the use of notes or textbooks on a written examination.
- o by achieving a 76% or higher on a written examination.

Criteria

- o Identifies primary tissues of body according to location and function.
- o Components within each primary tissue type are compared.
- o Serous and mucous membranes of body are compared.
- o Comparison includes similarities and differences between epithelial tissues.

Learning Objectives

- a. Identify primary tissues of body by location.
- b. Identify primary tissues of body by function.
- c. Compare components of each type of primary tissue.
- d. Compare membranes associated with body tissues.
- e. Compare types of epithelium by structure, location and function.

Learning Activities

- ____ 1. READ Learning Plan 3 in module prior to class.
- ____ 2. READ Chapter 4 in textbook prior to class.
- ____ 3. COMPLETE pp. 45-56 in workbook.
- ____ 4. PARTICIPATE in lecture and discussion on learning objectives.
- ____ 5. PARTICIPATE in team project to identify tissues and membranes.

Assessment Activities

- ____ 1. COMPLETE multiple choice tests in workbook.
- ____ 2. CORRECT tests in workbook.
- ____ 3. SUBMIT tissue and membrane identification class project.

Learning Plan 4

Information

Overview

The integumentary system is the body system that is visible to us. The integumentary system includes skin, the largest organ of the body, hair, nails and various exocrine glands. Homeostasis of the integumentary system is very easy to ascertain due to the visible nature of this body system.

Target Competencies

Competency

Relate integumentary components to integumentary functions.

Linked Core Abilities

- Work cooperatively.
- Act responsibly.
- Think critically and creatively.
- Communicate clearly.
- Work productively.
- Learn effectively.

Competence will be demonstrated:

- o by active participation in group activities.
- o without the use of notes or textbooks on a written examination.
- o by achieving a 76% or higher on a written examination.

Criteria

- o Functions of integumentary system are identified.
- o Location, structure, and function of layers of skin are compared.
- o Hair is characterized by structure and location.
- o Tissues of integumentary system are identified according to location and function.

Learning Objectives

- a. Identify functions of integumentary system.
- b. Compare layers of skin.
- c. Characterize hair by structure and location.
- d. Identify location and functions of integumentary nerve tissue, glands and blood vessels.

Competency

Evaluate the inflammation process.

Linked Core Abilities

- Work cooperatively.
- Act responsibly.
- Think critically and creatively.
- Communicate clearly.
- Work productively.
- Learn effectively.

Competence will be demonstrated:

- o by active participation in group activities.
- o without the use of notes or textbooks on a written examination.
- o by achieving a 76% or higher on a written examination.

Criteria

- o Examination process includes the significance of inflammation.
- o Evaluation includes symptoms of both local and systemic inflammation.
- o Symptoms of inflammation are explained by anatomical and physiological changes.
- o Evaluation includes influence of chemical mediators in the inflammatory process.

Learning Objectives

- a. Examine purpose of inflammatory process.
- b. Analyze role of chemical mediators in the inflammatory process.
- c. Characterize symptoms of inflammation.
- d. Correlate anatomical changes of inflammatory process to symptoms.

Learning Activities

- ____ 1. READ Learning Plan 4 in module prior to class.
- ____ 2. READ Chapter 5 in textbook prior to class.
- ____ 3. COMPLETE pp. 60-66 in workbook prior to class.
- ____ 4. PARTICIPATE in lecture and discussion on learning objectives.
- ____ 5. CREATE and PRESENT a flow chart of the steps of inflammation in a small group.

Assessment Activities

- ____ 1. COMPLETE multiple choice tests in workbook.
- ____ 2. CORRECT tests in workbook.
- ____ 3. SUBMIT inflammation flow charts created in class.

Learning Plan 5

Information

Overview

This learning plan will provide an introduction and overview of the skeletal system. The main functions of the skeletal system are support of body tissues, protection of vital body tissues and movement. Learners will compare types of bones based on location, shape, gross appearance and function. Learners will identify bones of body. Learners will analyze bone development and growth.

Target Competencies

Competency

Compare the axial and appendicular portions of human skeleton.

Linked Core Abilities

- Work cooperatively.
- Act responsibly.
- Think critically and creatively.
- Communicate clearly.
- Work productively.
- Learn effectively.

Competence will be demonstrated:

- o by active participation in group activities.
- o without the use of notes or textbooks on a written examination.
- o by achieving a 76% or higher on a written examination.

Criteria

- o Comparison includes differences between axial and appendicular skeleton.
- o Bones of axial and appendicular skeleton are identified correctly.
- o Comparison includes similarities and differences between bone shapes and gross anatomical characteristics.
- o Cells of bone are compared.
- o Composition of bone is examined.

Learning Objectives

- a. Differentiate between components of axial and appendicular skeleton.
- b. Identify bones of axial and appendicular skeleton.
- c. Compare bones by shape and gross anatomical appearance.
- d. Compare types of bone cells.
- e. Examine significance of chemical composition of bone.

Competency

Assess growth of bone tissue.

Linked Core Abilities

- Work cooperatively.
- Act responsibly.
- Think critically and creatively.
- Communicate clearly.
- Work productively.
- Learn effectively.

Competence will be demonstrated:

- o by active participation in group activities.
- o without the use of notes or textbooks on a written examination.
- o by achieving a 76% or higher on a written examination.

Criteria

- o Steps in bone growth are characterized by anatomical and physiological changes.
- o Cells of bone growth are identified.
- o Analysis includes factors that affect bone growth and bone maintenance.
- o Disease process of osteoporosis is compared to normal bone maintenance.

Learning Objectives

- a. Characterize steps involved in bone growth.
- b. Identify cells involved in bone growth.
- c. Analyze factors that affect bone growth and maintenance.
- d. Contrast osteoporosis disease process and bone growth.

Learning Activities

- ____ 1. READ Learning Plan 5 in module prior to class.
- ____ 2. READ Chapter 6 in textbook prior to class.
- ____ 3. COMPLETE pp. 70-91 in workbook prior to class.
- ____ 4. PARTICIPATE in lecture and discussion on learning objectives.
- ____ 5. CONTRIBUTE to a team effort at creating a simulated skeleton in class.

Assessment Activities

- ____ 1. COMPLETE multiple choice tests in workbook.
- ____ 2. CORRECT tests in workbook.
- ____ 3. SUBMIT skeleton for display in classroom.

Learning Plan 6

Information

Overview

The muscular system works with the skeletal system to move body parts. However, the muscular system is also important to visceral functions. In this learning plan, learners will correlate the actions between nerve tissue and muscle fibers that results in a muscle contraction.

Target Competencies

Competency

Correlate activities at neuromuscular junction with the sliding filament theory.

Linked Core Abilities

- Work cooperatively.
- Act responsibly.
- Think critically and creatively.
- Communicate clearly.
- Work productively.
- Learn effectively.

Competence will be demonstrated:

- o by active participation in group activities.
- o without the use of notes or textbooks on a written examination.
- o by achieving a 76% or higher on a written examination.

Criteria

- o Energy requirements of a contracting muscle are examined.
- o Phases of sliding filament theory are characterized by outcome and interaction between muscle filaments.
- o Comparison includes similarities and differences between isotonic and isometric contractions.
- o Comparison includes similarities and differences between a polarized muscle cell and a depolarized muscle cell.
- o Major muscles of body are identified.
- o Interaction between nerve tissue and muscle tissue is analyzed.
- o Structure of a normal muscle fiber is identified.
- o Antagonistic and synergistic muscles are compared.

Learning Objectives

- a. Identify structure of a muscle fiber.
- b. Characterize muscles as antagonistic or synergistic.
- c. Compare isotonic and isometric muscle contractions (exercise).
- d. Analyze role of nerve tissues (e.g. brain structures, nerve receptors, etc.) in regulating muscle function.
- e. Examine metabolism requirements of a contracting skeletal muscle.
- f. Compare steps of polarization and depolarization.
- g. Break down sliding filament theory into steps.
- h. Identify major muscles of body.
- i. Correlate points of insertion and origin to muscle function.

Learning Activities

- ____ 1. READ Learning Plan 6 in module prior to class.
- ____ 2. READ Chapter 7 in textbook prior to class.
- ____ 3. COMPLETE pp. 96-111 in workbook prior to class.
- ____ 4. PARTICIPATE in lecture and discussion on learning objectives.
- ____ 5. CONTRIBUTE to a team project to create simulated major muscles.
- ____ 6. ASSIST team members in appropriate attachment of muscles to skeleton (from last class).

Assessment Activities

- ____ 1. COMPLETE multiple choice tests in workbook.
- ____ 2. CORRECT tests in workbook.
- ____ 3. SUBMIT skeleton and muscles for display in classroom.

Learning Plan 7

Information

Overview

The nervous system is a very complex body system that is responsible for maintaining homeostasis of most body functions. The nervous system is composed of multiple divisions. Learners will evaluate the structure and function of each division.

Target Competencies

Competency

Compare divisions of nervous system by location, structure, and functions.

Linked Core Abilities

- Work cooperatively.
- Act responsibly.
- Think critically and creatively.
- Communicate clearly.
- Work productively.
- Learn effectively.

Competence will be demonstrated:

- o by active participation in group activities.
- o without the use of notes or textbooks on a written examination.
- o by achieving a 76% or higher on a written examination.

Criteria

- o Divisions of nervous system are identified.
- o Comparison includes similarities and differences between cells of nerve tissue.
- o Actions at a synapse are characterized by anatomical and physiological changes.
- o Types of neurons and nerves are compared by structure, location, and function.
- o Components of a reflex arc are identified.
- o Comparison includes similarities and differences between brain structures.
- o Spinal and cranial nerves are compared by numbers, location, and function.
- o Divisions of autonomic nervous system are compared by function.

Learning Objectives

- a. Identify divisions of nervous system.
- b. Compare cells of nerve tissue.
- c. Characterize actions at a synapse.
- d. Compare types of neurons and nerves.
- e. Analyze structure of spinal cord.
- f. Correlate components of nervous system to a reflex arc.
- g. Compare structures of brain by location and function.
- h. Compare spinal and cranial nerves.
- i. Compare sympathetic and parasympathetic divisions.

Learning Activities

- ____ 1. READ Learning Plan 7 in module prior to class.
- ____ 2. READ Chapter 8 in textbook prior to class.
- ____ 3. COMPLETE pp. 115-135 in workbook prior to class.
- ____ 4. PARTICIPATE in a lecture and discussion on the learning objectives.
- ____ 5. CREATE a model of sensory and motor neuron prior to class. (5 points)
- ____ 6. PRESENT and EXPLAIN neuron models in class.

Assessment Activities

- ____ 1. COMPLETE multiple choice tests in workbook.
- ____ 2. CORRECT tests in workbook.
- ____ 3. SUBMIT neuron models.

Learning Plan 8

Information

Overview

In order for the body to maintain homeostasis, there must be sensors throughout the body that monitor what is happening to body functions and body tissues. Learners will examine sensory receptors throughout the body. Learners will also outline the structure and functions of the eye and ear.

Target Competencies

Competency

Compare sensory receptors of body tissues.

Linked Core Abilities

- Work cooperatively.
- Act responsibly.
- Think critically and creatively.
- Communicate clearly.
- Work productively.
- Learn effectively.

Competence will be demonstrated:

- o by active participation in group activities.
- o without the use of notes or textbooks on a written examination.
- o by achieving a 76% or higher on a written examination.

Criteria

- o Examination includes significance of referred pain.
- o Comparison includes similarities and differences between senses of hunger, thirst, and taste.
- o Examination includes structures and their functions in the sound pathway.
- o Physiology of vision is examined.
- o Structures of eye and ear are correlated to the functions of the eye and ear.
- o Tissue sensory receptors are identified according to location and function.

Learning Objectives

- a. Characterize sensory receptors by sensations.
- b. Explain referred pain.
- c. Compare senses of thirst, hunger and taste.
- d. Examine physiology of vision.
- e. Examine sound pathway.
- f. Correlate major structures of the eye and ear with their respective functions.

Learning Activities

- ____ 1. READ Learning Plan 8 in module prior to class.
- ____ 2. READ Chapter 9 in textbook prior to class.
- ____ 3. COMPLETE pp. 141-155 in workbook prior to class.
- ____ 4. PARTICIPATE in lecture and discussion on learning objectives.
- ____ 5. CREATE "map" of sight and sound in a small group.

Assessment Activities

- ____ 1. COMPLETE multiple choice tests in workbook.
- ____ 2. CORRECT tests in workbook.
- ____ 3. SUBMIT "map" of sight and sound.

Learning Plan 9

Information

Overview

The endocrine system works in conjunction with the nervous system to maintain homeostasis. The endocrine system consists of endocrine glands and tissues that have endocrine functions, including the stomach, kidney and small intestine. The endocrine system maintains homeostasis by secreting hormones which alter the metabolism of cells.

Target Competencies

Competency

Relate hormone actions to tissues.

Linked Core Abilities

- Work cooperatively.
- Act responsibly.
- Think critically and creatively.
- Communicate clearly.
- Work productively.
- Learn effectively.

Competence will be demonstrated:

- o by active participation in group activities.
- o without the use of notes or textbooks on a written examination.
- o by achieving a 76% or higher on a written examination.

Criteria

- o Examination includes the role hormones play in maintaining homeostasis.
- o Hormones are classified by chemical structure.
- o Components of endocrine system are identified by location, structure, and function.
- o Actions of hormones are compared.
- o Comparison includes similarities and differences between the hormones secreted, functions of those hormones, structure and hypothalamus interaction between anterior and posterior pituitary.

Learning Objectives

- a. Examine role of hormones in homeostasis.
- b. Classify hormones by chemical structure.
- c. Identify components of endocrine system.
- d. Compare mechanisms of hormone action.
- e. Compare anterior and posterior pituitary.

Learning Activities

- ____ 1. READ Learning Plan 9 in module prior to class.
- ____ 2. READ Chapter 10 in textbook prior to class.
- ____ 3. COMPLETE pp. 160-181 in workbook prior to class.
- ____ 4. PARTICIPATE in lecture and discussion on learning objectives.
- ____ 5. CREATE and PRESENT a diagram of negative feedback mechanisms regulated by hormones prior to class. (5 points)
- ____ 6. PARTICIPATE in small group activity to complete pp. 169-170 in workbook in class.

Assessment Activities

- ____ 1. COMPLETE multiple choice tests in workbook.
- ____ 2. CORRECT tests in workbook.
- ____ 3. SUBMIT Negative Feedback diagram.

Learning Plan 10

Information

Overview

Blood is the main transportation mechanism for a number of substances - the blood transports gases to and from tissues, transports nutrients to tissues, transports wastes to areas of excretion. Learners will analyze composition of blood and the functions of blood.

Target Competencies

Competency

Analyze composition and functions of blood.

Linked Core Abilities

- Work cooperatively.
- Act responsibly.
- Think critically and creatively.
- Communicate clearly.
- Work productively.
- Learn effectively.

Competence will be demonstrated:

- o by active participation in group activities.
- o without the use of notes or textbooks on a written examination.
- o by achieving a 76% or higher on a written examination.

Criteria

- o Learner identifies characteristics and normal values of blood.
- o Plasma proteins are compared by abundance and functions.
- o Structure of an erythrocyte is correlated to its functions.
- o Examination includes steps of erythropoiesis.
- o Types of anemia are correlated to anatomical and physiological changes of an erythrocyte.
- o Explanation includes what happens to an erythrocyte when its lifespan expires.
- o Blood types are compared by antigen and antibody arrangement.
- o Leukocytes are classified by functions.
- o Functions of platelets are identified.
- o Assessment includes stages of hemostasis.

Learning Objectives

- a. Identify characteristics and normal values of blood.
- b. Compare plasma proteins.
- c. Correlate structure of erythrocytes to erythrocyte functions.
- d. Examine erythropoiesis.
- e. Correlate pathology of erythrocytes to types of anemia.
- f. Explain what happens to an erythrocyte when its life span is expired.
- g. Compare blood types.
- h. Classify leukocytes by functions.
- i. Identify functions of platelets.
- j. Assess stages of hemostasis.

Learning Activities

- ____ 1. READ Learning Plan 10 in module prior to class.
- ____ 2. READ Chapter 11 in textbook prior to class.
- ____ 3. COMPLETE pp. 185-198 in workbook prior to class.
- ____ 4. PARTICIPATE in a lecture and discussion on the learning objectives.
- ____ 5. CREATE a chart of blood components in small groups.
- ____ 6. PRACTICE a model of a Table of Normal Values in small groups.

Assessment Activities

- ____ 1. COMPLETE multiple choice tests in workbook.
- ____ 2. CORRECT tests in workbook.
- ____ 3. SUBMIT chart of blood components.

Learning Plan 11

Information

Target Competencies

Competency

Analyze regulation of blood flow.

Linked Core Abilities

Work cooperatively.

Act responsibly.

Think critically and creatively.

Communicate clearly.

Work productively.

Learn effectively.

Competence will be demonstrated:

- o by active participation in group activities.
- o without the use of notes or textbooks on a written examination.
- o by achieving a 76% or higher on a written examination.

Criteria

- o Structure and function of types of blood vessels are contrasted.
- o Pulmonary and systemic circulation are compared.
- o Major blood vessels of body are identified according to location.
- o Relationship between blood vessel type and blood pressure are correlated.
- o Body systems and tissues involved in regulating blood pressure are identified according to actions.

Learning Objectives

- a. Contrast arteries, veins and capillaries.
- b. Compare pulmonary and systemic circulation.
- c. Identify major blood vessels of body.
- d. Correlate blood pressure to types of blood vessels.
- e. Identify body systems involved in maintaining and regulating blood pressure.

Competency

Evaluate mechanisms that regulate heart rate.

Linked Core Abilities

Work cooperatively.

Act responsibly.

Think critically and creatively.

Communicate clearly.

Work productively.

Learn effectively.

Competence will be demonstrated:

- o by active participation in group activities.
- o without the use of notes or textbooks on a written examination.
- o by achieving a 76% or higher on a written examination.

Criteria

- o Relationship between heart chambers and their respective blood vessels are established.
- o Relationship between heart chambers and their respective heart valves are established.
- o Blood flow through heart is demonstrated.
- o Blood flow to and within myocardium is identified.
- o Events of cardiac cycle are characterized by sequence and outcome.
- o Normal heart rate values are identified.
- o Terminology associated with heart functions is contrasted by action and outcome.
- o Brain centers involved in regulating blood pressure are examined.

Learning Objectives

- a. Correlate chambers of heart to their respective blood vessels.
- b. Correlate chambers of heart with their respective heart valves.
- c. Map blood flow through heart.
- d. Identify blood vessels of myocardium.
- e. Characterize sequence of events in the cardiac cycle.
- f. Analyze cardiac conduction pathway.
- g. Contrast terminology associated with heart functions (e.g. stroke volume, venous return).
- h. Examine brain centers involved in regulating blood pressure.

Learning Activities

- ____1. READ Chapters 12 and 13 in textbook prior to class.
- ____2. READ Learning Plan 11 in module prior to class.
- ____3. COMPLETE pp. 204-215 and pp. 220-239 in workbook prior to class.
- ____4. PARTICIPATE in lecture and discussion on learning objectives.
- ____5. CONTRAST and COMPARE blood vessels in small group activity.
- ____6. CREATE a diagram demonstrating the cardiac cycle prior to class.
- ____7. PARTICIPATE in auscultation exercises in class.

Assessment Activities

- ____1. COMPLETE multiple choice tests for Chapters 12 and 13 in workbook.
- ____2. CORRECT tests in workbook.
- ____3. SUBMIT cardiac cycle diagram.
- ____4. SUBMIT blood vessel comparisons.
- ____5. SUBMIT "Current Events Article" if you have not done this yet.
- ____6. INFORM instructor of date planned for "Oral Presentation."

Learning Plan 12

Information

Overview

The immune system is our body's defense against foreign antigens. When our immune system is compromised, our body is in danger. The lymphatic system carries foreign substances to lymphatic tissues where immune cells are housed. Learners will examine components of the lymphatic system and correlate those tissues to the immune system.

Target Competencies

Competency

Analyze components of lymphatic system.

Linked Core Abilities

- Work cooperatively.
- Act responsibly.
- Think critically and creatively.
- Communicate clearly.
- Work productively.
- Learn effectively.

Competence will be demonstrated:

- o by active participation in group activities.
- o without the use of notes or textbooks on a written examination.
- o by achieving a 76% or higher on a written examination.

Criteria

- o Composition of lymph is characterized by amount, origin, and function.
- o Comparison includes similarities and differences between types of lymphatic vessels.
- o Locations of lymphatic nodes and nodules are identified.
- o Relationship between spleen structure and function are established.
- o Relationship between thymus structure and function are established.

Learning Objectives

- a. Characterize composition of lymph.
- b. Compare types of lymphatic vessels.
- c. Identify areas of lymphatic nodes and lymphatic nodules.
- d. Correlate structure of spleen with its functions.
- e. Correlate structure of thymus with its functions.

Competency

Compare types of immunity.

Linked Core Abilities

- Work cooperatively.
- Act responsibly.
- Think critically and creatively.
- Communicate clearly.
- Work productively.
- Learn effectively.

Competence will be demonstrated:

- o by active participation in group activities.
- o without the use of notes or textbooks on a written examination.
- o by achieving a 76% or higher on a written examination.

Criteria:

- o Cells of immunity are identified according to origin and function.
- o Comparison includes similarities and differences between antigens and antibodies.
- o Comparison includes similarities and differences between acquired and genetic immunity.
- o Analysis includes actions of cell-mediated and humoral immunity.

Learning Objectives

- a. Identify cells of immunity.
- b. Compare antigens and antibodies.
- c. Compare acquired and genetic immunity.
- d. Analyze actions of cell-mediated and humoral immunity.

Learning Activities

- ____ 1. READ Learning Plan 12 in module prior to class.
- ____ 2. READ Chapter 14 in textbook prior to class.
- ____ 3. COMPLETE pp. 244-255 in workbook prior to class.
- ____ 4. PARTICIPATE in lecture and discussion on the learning objectives.
- ____ 5. CREATE a lymph pathway in a small class group.
- ____ 6. PREPARE an immunity chart in a small class group.

Assessment Activities

- ____ 1. COMPLETE multiple choice tests in workbook.
- ____ 2. CORRECT tests in workbook.
- ____ 3. SUBMIT immunity chart.

Learning Plan 13

Information

Overview

The respiratory system works in conjunction with the circulatory system to provide body tissues with oxygen, to remove carbon dioxide from the body and to maintain blood pH. Learners will assess the process of ventilation and gas exchange.

Target Competencies

Competency

Evaluate ventilation.

Linked Core Abilities

- Work cooperatively.
- Act responsibly.
- Think critically and creatively.
- Communicate clearly.
- Work productively.
- Learn effectively.

Competence will be demonstrated:

- o by active participation in group activities.
- o without the use of notes or textbooks on a written examination.
- o by achieving a 76% or higher on a written examination.

Criteria:

- o Components of upper and lower respiratory tract are compared by location, structure, and function.
- o Lung serous and mucous membranes are identified according to location and function.
- o Mechanisms of inspiration and expiration are characterized.
- o Assessment includes location and process of gas exchange.
- o Transportation of oxygen and carbon dioxide in body are compared.
- o Various measurements of pulmonary volumes are analyzed.
- o Interactions between chemoreceptors and nerve tissue in maintaining homeostasis of respiration are established.
- o Relationship between blood pH and respiration is established.

Learning Objectives

- a. Compare structures of upper and lower respiratory tracts.
- b. Identify location and functions of lung serous membranes.
- c. Characterize mechanisms of air movement during inspiration and expiration.
- d. Assess gas exchange.
- e. Compare oxygen and carbon dioxide transportation.
- f. Analyze terminology associated with measuring pulmonary volumes.
- g. Correlate actions of chemoreceptors with nervous system regulation of ventilation.
- h. Relate ventilation with pH balance of blood.

Learning Activities

- ____ 1. READ Learning Plan 13 in module prior to class.
- ____ 2. READ Chapter 15 in textbook prior to class.
- ____ 3. COMPLETE pp. 260-277 in workbook prior to class.
- ____ 4. PARTICIPATE in a lecture and discussion on the learning objectives.
- ____ 5. PREPARE diagram illustrating the mechanism of breathing prior to class.
- ____ 6. PRODUCE pictorial evidence of interaction of other body systems' role in respiratory function in a group activity.
- ____ 7. PARTICIPATE in auscultation exercise in class.

Assessment Activities

- ____ 1. COMPLETE multiple choice tests in workbook.
- ____ 2. CORRECT tests in workbook.
- ____ 3. SUBMIT mechanism of breathing diagram.

Learning Plan 14

Information

Overview

The digestive system is the body system that breaks down food we ingest and converts it into products that can be absorbed and used by the body as energy and building blocks for body tissues. The digestive system also removes wastes and excess substances from the body.

Target Competencies

Competency

Analyze digestion and absorption.

Linked Core Abilities

- Work cooperatively.
- Act responsibly.
- Think critically and creatively.
- Communicate clearly.
- Work productively.
- Learn effectively.

Competence will be demonstrated:

- o by active participation in group activities.
- o without the use of notes or textbooks on a written examination.
- o by achieving a 76% or higher on a written examination.

Criteria:

- o Learner maps food pathway from oral cavity to rectum.
- o Divisions of digestive system are compared by structures included, location, and overall function.
- o Digestive system structures and their respective functions are compared.
- o Layers of alimentary canal wall are identified.
- o Functions of liver are compared.
- o Functions of small and large intestine are compared.
- o Examination includes structures and process of defecation reflex.

Learning Objectives

- a. Map pathway food products take from the oral cavity to the rectum.
- b. Compare divisions of digestive system.
- c. Compare functions of structures within the digestive system.
- d. Identify layers of alimentary canal wall.
- e. Compare functions of liver.
- f. Compare functions of large and small intestines.
- g. Examine defecation reflex.

Learning Activities

- ____1. READ Learning Plan 14 in module prior to class.
- ____2. READ Chapter 16 in textbook prior to class.
- ____3. COMPLETE pp. 282-300 in workbook prior to class.
- ____4. PARTICIPATE in lecture and discussion on learning objectives.
- ____5. CREATE word search puzzle using 10-15 terms related to the digestive system prior to class.
- ____6. CHALLENGE peers to completion of word search puzzles in class.
- ____7. PREPARE and PRESENT digestive "map" in a small class group.

Assessment Activities

- ____1. COMPLETE multiple choice tests in workbook.
- ____2. CORRECT tests in workbook.
- ____3. SUBMIT work search puzzles.

Learning Plan 15

Information

Overview

The urinary system regulates characteristics of the circulatory system including: blood pressure, blood volume and blood pH. The urinary system also removes wastes and excess substances from the body during filtration, secretion and excretion. Learners will correlate structures of the urinary system to the functions of the urinary system.

Target Competencies

Competency

Assess the urinary system's role in maintaining homeostasis of blood volume, blood pressure, and blood pH.

Linked Core Abilities

- Work cooperatively.
- Act responsibly.
- Think critically and creatively.
- Communicate clearly.
- Work productively.
- Learn effectively.

Competence will be demonstrated:

- o by active participation in group activities.
- o without the use of notes or textbooks on a written examination.
- o by achieving a 76% or higher on a written examination.

Criteria:

- o Functions of urinary system are identified.
- o Components of urinary system are identified by microscopic and gross anatomical appearance.
- o Urine formation is analyzed by process and regulation.
- o Examination includes process by which kidneys regulation blood pH.
- o Urination reflex is evaluated.
- o Comparison includes similarities and differences between mechanisms of water intake and water output.
- o Analysis includes clinical relevance of electrolyte concentrations in body fluids.
- o types of acidosis and alkalosis are compared.

Learning Objectives

- a. Identify functions of urinary system.
- b. Identify gross anatomical and microscopic appearance of urinary system components.
- c. Analyze urine formation.
- d. Compare mechanisms that regulate urine formation.
- e. Examine how kidneys balance pH of body fluids (particularly blood).
- f. Analyze clinical relevance of urine composition.
- g. Evaluate urination reflex.
- h. Compare mechanisms that regulate water intake and output.
- i. Analyze electrolyte concentrations in body fluids and the clinical relevance.
- j. Compare respiratory acidosis and alkalosis.
- k. Compare metabolic acidosis and alkalosis.

Learning Activities

- ____ 1. READ Learning Plan 15 in module prior to class.
- ____ 2. READ Chapters 18 and 19 in textbook prior to class.
- ____ 3. COMPLETE pp. 319-334 and pp. 339-347 in workbook prior to class.
- ____ 4. PARTICIPATE in lecture and discussion on learning objectives.
- ____ 5. DEVELOP a team challenge of acidosis vs. alkalosis in two groups in class.
- ____ 6. CREATE and PRESENT a diagram of kidney function in small groups in class.

Assessment Activities

- ____ 1. COMPLETE multiple choice tests for Chapters 18 and 19 in workbook.
- ____ 2. CORRECT tests in workbook.
- ____ 3. SUBMIT diagram of kidney function.
- ____ 4. SUBMIT "Table of Normal Values."
- ____ 5. SUBMIT "Current Events Article" if this has not already been done.
- ____ 6. PERFORM "Oral Presentation" if this has not already been done.

Learning Plan 16

Information

Overview

Learners will evaluate the normal anatomy of the male and female reproductive systems. The processes of oogenesis and spermatogenesis will be compared.

Target Competencies

Competency

Differentiate between stages of menstrual cycle.

Linked Core Abilities

- Work cooperatively.
- Act responsibly.
- Think critically and creatively.
- Communicate clearly.
- Work productively.
- Learn effectively.

Competence will be demonstrated:

- o by active participation in group activities.
- o without the use of notes or textbooks on a written examination.
- o by achieving a 76% or higher on a written examination.

Criteria:

- o Structures of female reproductive system are identified.
- o Interactions between pituitary hormones and ovaries and mammary glands are compared.
- o Analysis includes follicular changes during menstrual cycle.

Learning Objectives

- a. Identify structures of female reproductive system.
- b. Compare interactions between pituitary hormones and the ovaries and mammary glands.
- c. Relate changes in endometrium to ovarian cycle.
- d. Analyze follicular changes during menstrual cycle.

Competency

Analyze stages of spermatogenesis.

Linked Core Abilities

- Work cooperatively.
- Act responsibly.
- Think critically and creatively.
- Communicate clearly.
- Work productively.
- Learn effectively.

Competence will be demonstrated:

- o by active participation in group activities.
- o without the use of notes or textbooks on a written examination.
- o by achieving a 76% or higher on a written examination.

Criteria:

- o Learner maps route sperm take through male reproductive system.
- o Structures of male reproductive system are identified.
- o Relationship between accessory reproductive glands and spermatogenesis is established.
- o Cells of spermatogenesis are identified according to location and function.

Learning Objectives

- a. Map spermatozoa movement through male reproductive system.
- b. Identify structures of male reproductive system.
- c. Relate accessory reproductive glands to spermatogenesis.
- d. Identify cells of spermatogenesis.

Learning Activities

- ____ 1. READ Learning Plan 16 in module prior to class.
- ____ 2. READ Chapters 20 and 21 in textbook prior to class.
- ____ 3. COMPLETE pp. 351-364 and pp. 370-380 in workbook prior to class.
- ____ 4. PARTICIPATE in lecture and discussion on learning objectives.

Assessment Activities

- ____ 1. COMPLETE multiple choice tests for Chapters 20 and 21 in workbook.
- ____ 2. CORRECT tests in workbook.
- ____ 3. PRESENT/SUBMIT oral presentation if not already presented/submitted.
- ____ 4. SUBMIT Table of Normal Values if not already presented/submitted.

Learning Plan 17

Information

Overview

When the body does not work, usually the physiological processes are interrupted and/or the anatomy of a body tissue has changed. In a number of cases, the causative agent is a microorganism. This learning plan will identify microorganisms and correlate them to disorders.

Target Competencies

Competency

Correlate microbiology terminology with human disease processes.

Competence will be demonstrated:

- o by active participation in group activities.
- o without the use of notes or textbooks on a written examination.
- o by achieving a 76% or higher on a written examination.

Criteria

- o Comparison includes similarities and differences between common microorganisms.
- o Terminology associated with reservoirs and spread of infection are classified.
- o Portals of microorganism entry and exit are compared.
- o Relationship between disease and specific types of microorganisms is examined.

Learning Objectives

- a. Compare different types of microorganisms.
- b. Classify terminology associated with reservoirs of infection and spread of infection.
- c. Compare portals of entry and portals of exit.
- d. Examine relationship between disease and specific types of microorganisms.

Learning Activities

- ____ 1. READ Learning Plan 17 in module prior to class.
- ____ 2. READ Chapter 22 in textbook prior to class.
- ____ 3. COMPLETE pp. 385-391 in workbook prior to class.
- ____ 4. PARTICIPATE in lecture and discussion on learning objectives.
- ____ 5. CREATE and PRESENT brief summary of the key points of Chapter 22.
- ____ 6. PARTICIPATE in a "Team Challenge" with a five question quiz to be prepared and given in class.

Assessment Activities

- ____ 1. SUBMIT outline of Chapter 22.
- ____ 2. SUBMIT Team Challenge quizzes.

Performance Assessment Task 1

Examinations

Target Competencies

- Explain concept of homeostasis as it relates to anatomy and physiology.
- Relate body structures to body systems and functions.
- Relate anatomical terminology to body regions, body and organ planes, and body cavities.
- Examine basic concepts of chemistry.
- Compare cellular transport mechanisms.
- Examine major cellular functions.
- Characterize primary tissue types of body.
- Relate integumentary components to integumentary functions.
- Evaluate the inflammation process.
- Compare the axial and appendicular portions of human skeleton.
- Assess growth of bone tissue.
- Correlate activities at neuromuscular junction with the sliding filament theory.
- Compare divisions of nervous system by location, structure, and functions.
- Compare sensory receptors of body tissues.
- Relate hormone actions to tissues.
- Analyze composition and functions of blood.
- Analyze regulation of blood flow.
- Evaluate mechanisms that regulate heart rate.
- Analyze components of lymphatic system.
- Compare types of immunity.
- Evaluate ventilation.
- Analyze digestion and absorption.
- Assess the urinary system's role in maintaining homeostasis of blood volume, blood pressure, and blood pH.
- Differentiate between stages of menstrual cycle.
- Analyze stages of spermatogenesis.
- Correlate microbiology terminology with human disease processes.

Linked Core Abilities

- Work cooperatively.
- Act responsibly.
- Think critically and creatively.
- Communicate clearly.
- Work productively.
- Learn effectively.

Directions

There will be a total of five unit examinations and one final comprehensive exam, each worth 100 points. Examinations will cover the competencies covered in class and as listed in your module. You must pass all required competencies. Passing competencies is determined by passing exams.

A retake examination MAY be offered and required for failed exam(s). An failing exam is an exam with a grade less than 76%. The instructor has the option to offer or not offer such retake exam(s).

In the event you do not pass an exam and a retake is required, you must take the retake exam by the due date for retakes. Please follow these guidelines:

- a. Only one retake is allowed for a failed exam; if you do not complete the retake you will receive a '0' for a score on the exam and competencies will not have been successfully met.
- b. The maximum score you may receive on an exam is the lowest passing score, a 76%.
- c. A retake may not be taken on the same day as the initial exam.
- d. If you fail a retake, you will receive a '0' for a score and competencies for that exam will not have been successfully met.

If you cheat on an exam, you will earn a '0' for a score. A retake exam will not be allowed. Cheating includes (but is not limited to): sharing information with other students about material on an exam and using notes or textbooks during an exam (when not indicated).

Performance Assessment Task 2

Current Events

Directions

By the end of the course, you must present a recent news article, journal article, online article, etc., about a science issue. A copy of the article or the article itself must be submitted with a typed summary of the article.

Performance Assessment Task 3

Quizzes

Directions

The instructor will administer five quizzes throughout the course. Quizzes will cover material from the previous and/or present units of study. Each quiz is worth 40 points.

Performance Assessment Task 4

Oral Presentation

Directions

Prepare a 10-15 minute presentation on a disorder of the body. Anatomy and physiology survey deals mostly with normal anatomy and physiology. The presentation and the preparation and research of a disorder will allow you to recognize the relationship between understanding normal anatomy and physiology and abnormal anatomy and physiology.

Research and information must be gathered from other sources than your textbook. You must have at least 5 references. References must be typed in APA style format and submitted at time of presentation, as well as typed information used for your report.

Visual aids must accompany your presentation. Computers may be helpful in preparing visual aids. If you do not have a computer at home, there are computers in the computer labs and in the library for your use.

The presentation is worth 100 points. See Oral Presentation Checklist for criteria the instructor will use to grade you on your presentation.

Oral Presentation Checklist

Scoring Guide		
	Criteria	Ratings
1.	Presentation skills are demonstrated: eye contact, volume, no reading of notes, etc.? 5 points	
2.	Information is organized. 5 points	
3.	Did learner submit five references? 5 points	
4.	Visual aids are included in presentation. 10 points	
5.	Creative strategy is utilized to highlight organ system. 10 points	
6.	Normal anatomy and physiology of organ system is described. 30 points	
7.	Abnormal anatomy and physiology of organ system is described. 30 points	
8.	Information meets accuracy standards. 5 points	
9.	Presentation met the 10-15 minute time frame. 5 points	
10.	Total points possible: 100 points	Total Earned: _____

Grade _____

Name _____

Date _____

Evaluator's Signature _____ Date _____

Comments:

Performance Assessment Task 5

Normal Values

Directions

Create a table of normal values of body functions. Throughout the course the instructor will mention normal values for body functions, e.g. blood pH = 7.35-7.45. You will be responsible for creating a table to list these normal values. You will hand in the table at the end of Week 15. Point value = 25 points.

Table of Normal/Abnormal Values

Scoring Guide		
	Criteria	Ratings
1.	Table is organized. 5 points	
2.	At least 10 values are included. 10 points	
3.	Significance of abnormal values are included. 10 points	
4.	Total points possible: 25 points	Total Earned: _____

Grade _____

Name _____

Date _____

Evaluator's Signature _____ Date _____

Comments: