

WTCS Repository

10-806-177 Gen Anatomy & Physiology

Course Outcome Summary

Course Information

Description Examines basic concepts of human anatomy and physiology as they relate to health sciences. Using a body systems approach, the course emphasizes the interrelationships between structure and function at the gross and microscopic levels of organization of the entire human body. It is intended to prepare health care professionals who need to apply basic concepts of whole body anatomy and physiology to informed decision-making and professional communication with colleagues and patients. (This course also provides the foundation, and is prerequisite to, Advanced Anatomy and Physiology.)

Total Credits 4.00

Pre/Corequisites

Prerequisite Each Wisconsin Technical College determines the General Education course prerequisites used by their academic institution. If prerequisites for a course are determined to be appropriate, the final Course Outcome Summary must identify the prerequisites approved for use by the individual Technical College.

Course Competencies

1. Apply descriptive, anatomical, physiological, and directional terminology to the human body and its organization

Assessment Strategies

- 1.1. through a graphic, written or oral product or process
- 1.2. by accurately answering questions about the concepts that support this competency in one or more written exams to be scheduled by your instructor at various points throughout this course
- 1.3. in a classroom or laboratory setting

Criteria

Your performance will be successful when:

- 1.1. graphic, written or oral product/process includes anatomical terminology for the anatomical positions used
- 1.2. graphic, written or oral product/process includes directional terminology
- 1.3. graphic, written or oral product/process portrays the describes characteristics and sequences of homeostatic mechanisms
- 1.4. graphic, written or oral product/process describes location, structure, and function of body cavities and linings
- 1.5. graphic, written or oral product identifies body planes, sections, and regions
- 1.6. graphic, written or oral product accurately represents homeostatic mechanisms

2. Classify the major chemical components of living things according to their structure and function

Assessment Strategies

- 2.1. through a graphic, written or oral product or process
- 2.2. by accurately answering questions about the concepts that support this competency in one or more written exams to be scheduled by your instructor at various points throughout this course
- 2.3. in a classroom or laboratory setting

Criteria

Your performance will be successful when:

- 2.1. graphic, written or oral product or process includes all of the major chemical components
- 2.2. graphic, written or oral product or process correlates components according to structure, function, and the role it major chemical components plays in body composition
- 2.3. graphic, written or oral product uses appropriate terminology

3. Characterize the basic structure and functions of the cell and its parts

Assessment Strategies

- 3.1. through a written, graphic or oral product or process
- 3.2. by accurately answering questions about the concepts that support this competency in one or more written exams to be scheduled by your instructor at various points throughout this course
- 3.3. in a classroom or laboratory setting

Criteria

Your performance will be successful when:

- 3.1. written, graphic or oral product or process addresses major components of the cell
- 3.2. written, graphic or oral product or process identifies the major functional components of the cell
- 3.3. written, graphic or oral product or process identifies the major transport mechanisms of the cell membranes
- 3.4. written, graphic or oral product or process illustrates the relationships among the organelles of a cell

4. Identify how cells store and use energy

Assessment Strategies

- 4.1. through a written, graphic or oral product or process
- 4.2. by accurately answering questions about the concepts that support this competency in one or more written exams to be scheduled by your instructor at various points throughout this course
- 4.3. in a classroom or laboratory setting

Criteria

Your performance will be successful when:

- 4.1. written, graphic, or oral product or process distinguishes between aerobic and anaerobic processes
- 4.2. written, graphic, or oral product or process shows metabolic pathways and their relationships to one another

5. Analyze the role of DNA in controlling cell functions

Assessment Strategies

- 5.1. through a written, graphic or oral product or process
- 5.2. by accurately answering questions about the concepts that support this competency in one or more written exams to be scheduled by your instructor at various points throughout this course
- 5.3. in a classroom or laboratory setting

Criteria

Your performance will be successful when:

- 5.1. written, graphic or oral product or process shows the structure of DNA, RNA, and chromosomes
- 5.2. written, graphic or oral product or process illustrates the cell cycle
- 5.3. written, graphic or oral product or process includes a clear description of how DNA and RNA differ
- 5.4. written, graphic or oral product or process explains the functional relationship between DNA, RNA, and chromosomes

6. Correlate the structure of tissues with their functions

Assessment Strategies

- 6.1. through a written, graphic or oral product or process
- 6.2. by accurately answering questions about the concepts that support this competency in one or more written exams to be scheduled by your instructor at various points throughout this course
- 6.3. in a classroom or laboratory setting

Criteria

Your performance will be successful when:

- 6.1. written, graphic or oral product or process identifies the tissue-based upon the structural components
- 6.2. written, graphic or oral product or process distinguishes among the four types of tissues
- 6.3. written, graphic or oral product or process relates structural components with tissue functions

7. Analyze how components of the integumentary system function in the body

Assessment Strategies

- 7.1. through a written, graphic or oral product or process
- 7.2. by accurately answering questions about the concepts that support this competency in one or more written exams to be scheduled by your instructor at various points throughout this course
- 7.3. in a classroom or laboratory setting

Criteria

Your performance will be successful when:

- 7.1. written, graphic or oral product or process identifies the structural components of the integumentary system
- 7.2. written, graphic or oral product or process correlates the structural components of the integumentary system with their functions
- 7.3. written, graphic or oral product or process identifies the major chemical secretions of the integumentary system
- 7.4. written, graphic or oral product or process illustrates the relationships among the components of the integumentary system
- 7.5. written, graphic or oral product or process summarizes the functions of the integumentary system

8. Analyze how components of the skeletal system function in the body

Assessment Strategies

- 8.1. through a written, graphic or oral product or process
- 8.2. by accurately answering questions about the concepts that support this competency in one or more written exams to be scheduled by your instructor at various points throughout this course
- 8.3. in a classroom or laboratory setting

Criteria

Your performance will be successful when:

- 8.1. written, graphic or oral product or process identifies gross and microscopic structural components of the skeletal system
- 8.2. written, graphic or oral product or process correlates the structural components of the skeletal system with their functions
- 8.3. written, graphic or oral product or process identifies the major chemical components of the skeletal system
- 8.4. written, graphic or oral product or process illustrates the relationships among the components of the skeletal system
- 8.5. written, graphic or oral product or process summarizes the functions of the skeletal system

9. Analyze how components of the muscular system function in the body

Assessment Strategies

- 9.1. through a written, graphic or oral product or process
- 9.2. by accurately answering questions about the concepts that support this competency in one or more written exams to be scheduled by your instructor at various points throughout this course
- 9.3. in a classroom or laboratory setting

Criteria

Your performance will be successful when:

- 9.1. written, graphic or oral product or process identifies the gross and microscopic structural components of the muscular system
- 9.2. written, graphic or oral product or process correlates the structural components of the muscular system with their functions
- 9.3. written, graphic or oral product or process identifies the major muscles and their functions
- 9.4. written, graphic or oral product or process illustrates the relationships among the components of the muscular system
- 9.5. written, graphic or oral product or process summarizes the functions of the muscular system

10. Analyze how components of the nervous system function in the body

Assessment Strategies

- 10.1. through a written, graphic or oral product or process
- 10.2. by accurately answering questions about the concepts that support this competency in one or more written exams to be scheduled by your instructor at various points throughout this course
- 10.3. in a classroom or laboratory setting

Criteria

Your performance will be successful when:

- 10.1. written, graphic or oral product or process identifies the gross and microscopic structural components of the nervous system
- 10.2. written, graphic or oral product or process correlates the structural components of the nervous system with their functions
- 10.3. written, graphic or oral product or process correlates cranial nerves to their respective physiological functions
- 10.4. written, graphic or oral product or process relates higher order brain functions to brain anatomy
- 10.5. written, graphic or oral product or process illustrates the relationships among the components of the nervous system
- 10.6. written, graphic or oral product or process summarizes the functions of the nervous system
- 10.7. written, graphic or oral product or process identifies the gross and microscopic structural components of the somatic and special senses
- 10.8. written, graphic or oral product or process correlates the structural components of the somatic and special senses with their functions

11. Correlate the major organs of the endocrine system with their function in the body

Assessment Strategies

- 11.1. through a written, graphic or oral product or process
- 11.2. by accurately answering questions about the concepts that support this competency in one or more written exams to be scheduled by your instructor at various points throughout this course
- 11.3. in a classroom or laboratory setting

Criteria

Your performance will be successful when:

- 11.1. written, graphic or oral product or process identifies the endocrine organs and their associated hormones
- 11.2. written, graphic or oral product or process identifies the general functions of the hormones
- 11.3. written, graphic or oral product or process illustrates the relationships among the components of the endocrine system
- 11.4. written, graphic or oral product or process summarizes the functions of the endocrine system

12. Analyze how components of the cardiovascular system function in the body

Assessment Strategies

- 12.1. through a written, graphic or oral product or process
- 12.2. by accurately answering questions about the concepts that support this competency in one or more written exams to be scheduled by your instructor at various points throughout this course
- 12.3. in a classroom or laboratory setting

Criteria

Your performance will be successful when:

- 12.1. written, graphic or oral product or process addresses major gross and microscopic structural components of the cardiovascular and lymphatic systems
- 12.2. written, graphic or oral product or process describes the flow of fluid through the systemic, pulmonary, and lymphatic circulations
- 12.3. written, graphic or oral product or process illustrates the functional relationships among the cardiovascular and lymphatic components
- 12.4. written, graphic or oral product or process describes the microscopic components of blood
- 12.5. written, graphic or oral product or process summarizes the functions of blood and each of its components
- 12.6. written, graphic or oral product or process describes the basis for bloodtyping
- 12.7. written, graphic or oral product or process the relationship between blood, tissue, and lymphatic fluids

13. Analyze how components of the digestive system function in the body

Assessment Strategies

- 13.1. through a written, graphic or oral product or process
- 13.2. by accurately answering questions about the concepts that support this competency in one or more written exams to be scheduled by your instructor at various points throughout this course
- 13.3. in a classroom or laboratory setting

Criteria

Your performance will be successful when:

- 13.1. written, graphic or oral product or process identifies the gross and microscopic structural components of the digestive system
- 13.2. written, graphic or oral product or process correlates the structural components of the digestive system with their functions
- 13.3. written, graphic or oral product or process describes the functions of major digestive enzymes
- 13.4. written, graphic or oral product or process summarizes the functions of the digestive system

14. Analyze how components of the respiratory system function in the body

Assessment Strategies

- 14.1. through a written, graphic or oral product or process
- 14.2. by accurately answering questions about the concepts that support this competency in one or more written exams to be scheduled by your instructor at various points throughout this course
- 14.3. in a classroom or laboratory setting

Criteria

Your performance will be successful when:

- 14.1. written, graphic or oral product or process identifies the gross and microscopic structural components of the respiratory system
- 14.2. written, graphic or oral product or process correlates the structural components of the respiratory system with their functions
- 14.3. written, graphic or oral product or process explains the mechanics of ventilation with reference to respiratory volumes and capacities
- 14.4. written, graphic or oral product or process summarizes the functions of the respiratory system

15. Analyze how the components of the urinary system function in the body

Assessment Strategies

- 15.1. through a written, graphic or oral product or process
- 15.2. by accurately answering questions about the concepts that support this competency in one or more written exams to be scheduled by your instructor at various points throughout this course
- 15.3. in a classroom or laboratory setting

Criteria

Your performance will be successful when:

- 15.1. written, graphic or oral product or process identifies the gross and microscopic structural components of the urinary system
- 15.2. written, graphic or oral product or process correlates the structural components of the urinary system with their functions
- 15.3. written, graphic or oral product or process illustrates the relationships among the components of the urinary system
- 15.4. written, graphic or oral product or process summarizes the functions of the urinary system

16. Analyze how components of the reproductive systems function in the body

Assessment Strategies

- 16.1. through a written, graphic or oral product or process
- 16.2. by accurately answering questions about the concepts that support this competency in one or more written exams to be scheduled by your instructor at various points throughout this course
- 16.3. in a classroom or laboratory setting

Criteria

Your performance will be successful when:

- 16.1. written, graphic or oral product or process identifies the gross and microscopic structural components of the male and female reproductive systems
- 16.2. written, graphic or oral product or process correlates the structural components of the male and female reproductive system with their functions
- 16.3. written, graphic or oral product or process identifies the secretions of the male and female reproductive systems and their functions
- 16.4. written, graphic or oral product or process summarizes the functions of the reproductive systems

17. Use appropriate laboratory methods and safety precautions

Assessment Strategies

- 17.1. in the laboratory

Criteria

Performance will be successful when:

- 17.1. you identify hazards and safety equipment in the lab
- 17.2. you select appropriate personal protective equipment
- 17.3. you follow all laboratory practice expectations of the college