

## WTCS Repository

10-806-177 Gen Anatomy & Physiology

# Course Outcome Summary

### Course Information

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|  | 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 |
|  | Prior Learning Assessment | PLA Test |

### Course History

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| --- | --- | --- |
|  | Last Revision Date | 3/5/2025 |
|  | Revised By | Owen Smith (smitho) |

Pre/Corequisites

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| 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

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| 1. | Apply descriptive, anatomical, physiological, and directional terminology to the human body and its organization |
|  | Assessment Strategies |
|  | 1.1. | Oral, Written, Graphic and/or Skill Assessment |
|  | Criteria |
|  | 1.1. | include anatomical terminology for the anatomical positions used |
|  | 1.2. | include directional terminology |
|  | 1.3. | describe characteristics and sequences of homeostatic mechanisms |
|  | 1.4. | describe location, structure, and function of body cavities and linings |
|  | 1.5. | identify body planes, sections, and regions |
|  | 1.6. | accurately represent homeostatic mechanisms |
| 2. | Classify the major chemical components of living things according to their structure and function |
|  | Assessment Strategies |
|  | 2.1. | Oral, Written, Graphic and/or Skill Assessment |
|  | Criteria |
|  | 2.1. | include all of the major chemical components |
|  | 2.2. | correlate components according to structure, function, and the role major chemical components plays in body composition |
|  | 2.3. | use appropriate terminology |
|  | 2.4. | compare the structure of DNA, RNA, and proteins |
| 3. | Characterize the basic structure of the human cell and the functions of its organelles |
|  | Assessment Strategies |
|  | 3.1. | Oral, Written, Graphic and/or Skill Assessment |
|  | Criteria |
|  | 3.1. | address major components of the cell |
|  | 3.2. | identify the major functional components of the cell |
|  | 3.3. | identify the major transport mechanisms of the cell membranes |
|  | 3.4. | illustrate the relationships among the organelles of a cell |
|  | 3.5. | illustrate the cell cycle |
| 4. | Correlate the structure of tissues with their functions |
|  | Assessment Strategies |
|  | 4.1. | Oral, Written, Graphic and/or Skill Assessment |
|  | Criteria |
|  | 4.1. | identify the tissue-based upon the structural components |
|  | 4.2. | distinguish among the four types of tissues |
|  | 4.3. | relate structural components with tissue functions |
| 5. | Analyze how components of the integumentary system function in the body |
|  | Assessment Strategies |
|  | 5.1. | Oral, Written, Graphic and/or Skill Assessment |
|  | Criteria |
|  | 5.1. | identify the structural components of the integumentary system |
|  | 5.2. | correlate the structural components of the integumentary system with their functions |
|  | 5.3. | identify the major chemical secretions of the integumentary system |
|  | 5.4. | illustrate the relationships among the components of the integumentary system |
|  | 5.5. | summarize the functions of the integumentary system |
| 6. | Analyze how components of the skeletal system function in the body |
|  | Assessment Strategies |
|  | 6.1. | Oral, Written, Graphic and/or Skill Assessment |
|  | Criteria |
|  | 6.1. | identify gross and microscopic structural components of the skeletal system |
|  | 6.2. | correlate the structural components of the skeletal system with their functions |
|  | 6.3. | identify the major chemical components of the skeletal system |
|  | 6.4. | illustrate the relationships among the components of the skeletal system |
|  | 6.5. | summarize the functions of the skeletal system |
|  | 6.6. | correlate joint structure with joint movement |
| 7. | Analyze how components of the muscular system function in the body |
|  | Assessment Strategies |
|  | 7.1. | Oral, Written, Graphic and/or Skill Assessment |
|  | Criteria |
|  | 7.1. | identify the gross and microscopic structural components of the muscular system |
|  | 7.2. | correlate the structural components of the muscular system with their functions |
|  | 7.3. | identify the major muscles and their functions |
|  | 7.4. | summarize the functions of the muscular system |
| 8. | Analyze how components of the nervous system function in the body |
|  | Assessment Strategies |
|  | 8.1. | Oral, Written, Graphic and/or Skill Assessment |
|  | Criteria |
|  | 8.1. | identify the gross and microscopic structural components of the nervous system |
|  | 8.2. | correlate the structural components of the nervous system with their functions |
|  | 8.3. | correlate cranial nerves to their respective physiological functions |
|  | 8.4. | illustrate the relationships among the components of the nervous system |
|  | 8.5. | summarize the functions of the nervous system |
|  | 8.6. | identify the gross and microscopic structural components of the somatic and special senses |
|  | 8.7. | correlate the structural components of the somatic and special senses with their functions |
| 9. | Correlate the major organs of the endocrine system with their function in the body |
|  | Assessment Strategies |
|  | 9.1. | Oral, Written, Graphic and/or Skill Assessment |
|  | Criteria |
|  | 9.1. | identify the endocrine organs and their associated hormones |
|  | 9.2. | describe the general functions of the hormones |
|  | 9.3. | illustrate the relationships among the components of the endocrine system |
| 10. | Analyze how components of the cardiovascular system function in the body |
|  | Assessment Strategies |
|  | 10.1. | Oral, Written, Graphic and/or Skill Assessment |
|  | Criteria |
|  | 10.1. | address major gross and microscopic structural components of the cardiovascular and lymphatic systems |
|  | 10.2. | describe the flow of fluid through the systemic, pulmonary, and lymphatic circulations |
|  | 10.3. | illustrate the functional relationships among the cardiovascular and lymphatic components |
|  | 10.4. | describe the microscopic components of blood |
|  | 10.5. | summarize the functions of blood and each of its components |
|  | 10.6. | describe the basis for blood typing |
|  | 10.7. | describe the relationship between blood, tissue, and lymphatic fluids |
| 11. | Analyze how components of the digestive system function in the body |
|  | Assessment Strategies |
|  | 11.1. | Oral, Written, Graphic and/or Skill Assessment |
|  | Criteria |
|  | 11.1. | identify the gross and microscopic structural components of the digestive system |
|  | 11.2. | correlate the structural components of the digestive system with their functions |
|  | 11.3. | describe the functions of major digestive enzymes |
|  | 11.4. | summarize the functions of the digestive system |
| 12. | Analyze how components of the respiratory system function in the body |
|  | Assessment Strategies |
|  | 12.1. | Oral, Written, Graphic and/or Skill Assessment |
|  | Criteria |
|  | 12.1. | identify the gross and microscopic structural components of the respiratory system |
|  | 12.2. | correlate the structural components of the respiratory system with their functions |
|  | 12.3. | explain the mechanics of ventilation with reference to respiratory volumes and capacities |
|  | 12.4. | summarize the functions of the respiratory system |
| 13. | Analyze how the components of the urinary system function in the body |
|  | Assessment Strategies |
|  | 13.1. | Oral, Written, Graphic and/or Skill Assessment |
|  | Criteria |
|  | 13.1. | identify the gross and microscopic structural components of the urinary system |
|  | 13.2. | correlate the structural components of the urinary system with their functions |
|  | 13.3. | illustrate the relationships among the components of the urinary system |
|  | 13.4. | summarize the functions of the urinary system |
| 14. | Analyze how components of the reproductive systems function in the body |
|  | Assessment Strategies |
|  | 14.1. | Oral, Written, Graphic and/or Skill Assessment |
|  | Criteria |
|  | 14.1. | identify the gross and microscopic structural components of the male and female reproductive systems |
|  | 14.2. | correlate the structural components of the male and female reproductive system with their functions |
|  | 14.3. | identify the secretions of the male and female reproductive systems and their functions |
|  | 14.4. | summarize the functions of the reproductive systems |
| 15. | Use appropriate laboratory methods and safety precautions |
|  | Assessment Strategies |
|  | 15.1. | Oral, Written, Graphic and/or Skill Assessment |
|  | Criteria |
|  | 15.1. | identify hazards and safety equipment in the lab |
|  | 15.2. | select appropriate personal protective equipment |
|  | 15.3. | follow all laboratory practice expectations of the college |