**COURSE DESCRIPTION**

**Course Title:** Anatomy Honors

**Course Number:** 00321

**Course Prerequisites:** Biology CP with an 80% or better or teacher approval

**Course Description:** Anatomy is a two-semester elective course concerned with the structure and function of the human body and concentrates on a detailed study of the anatomy of the muscular, circulatory, digestive, respiratory, excretory, integumentary, endocrine, urinary, nervous, and reproductive systems. The anatomy of other vertebrates will be considered. The course includes lab work and considerable reading.

**Suggested Grade Level**: Grades 11-12

**Length of Course:** Two Semesters

**Units of Credit:** 1

**PDE Certification and Staffing Policies and Guidelines (CSPG) Required Teacher Certifications:**

CSPG 32 Biology

To find the CSPG information, go to [CSPG](https://www.education.pa.gov/Educators/Certification/Staffing%20Guidelines/Pages/default.aspx)

**Certification verified by the WCSD Human Resources Department:** Yes No

**WCSD STUDENT DATA SYSTEM INFORMATION**

**Course Level:** Academic

**Mark Types:** Check all that apply.

F – Final Average MP – Marking Period EXM – Final Exam

**GPA Type**:  GPAEL-GPA Elementary  GPAML-GPA for Middle Level  NHS-National Honor Society

UGPA-Non-Weighted Grade Point Average  GPA-Weighted Grade Point Average

**State Course Code**: 03054

To find the State Course Code, go to [State Course Code](https://nces.ed.gov/forum/sced.asp), download the Excel file for *SCED*, click on SCED 6.0 tab, and choose the correct code that corresponds with the course.

**TEXTBOOKS AND SUPPLEMENTAL MATERIALS**

**Board Approved Textbooks, Software, and Materials:**

**Title:**  Essentials of Human Anatomy and Physiology

**Publisher:** Pearson

**ISBN #:**  0-13-458057-5

**Copyright Date:** 2018

**WCSD Board Approval Date:** 5/14/2018

**Supplemental Materials:** Dissection materials

**Curriculum Document**

**WCSD Board Approval:**

**Date Finalized:** 2/19/2025

**Date Approved:**  3/10/2025

**Implementation Year:** 2025-2026

**SPECIAL EDUCATION, 504, and GIFTED REQUIREMENTS**

The teacher shall make appropriate modifications to instruction and assessment based on a student’s Individual Education Plan (IEP), Chapter 15 Section 504 Plan (504), and/or Gifted Individual Education Plan (GIEP).

**SCOPE AND SEQUENCE OF CONTENT AND CONCEPTS**

**Marking Period 1**

* General Anatomy/Physiology
* Cells and Tissues
* Integumentary System
* Muscular System

**Marking Period 2**

* Muscular System
* Nervous System
* Endocrine System
* Cardiovascular System

**Marking Period 3**

* Lymphatic System
* Reproductive System
* Digestive System

**Marking Period 4**

* Urinary System
* Respiratory System

**Standards/Eligible Content and Skills**

| **Performance Indicator** | **PA Core Standard and/or Eligible Content** | **Marking Period Taught** |
| --- | --- | --- |
| Describe relationships between structure and function at biological levels of organization. | BIO.A.1.2 | MP1, MP2,  MP3, MP4 |
| Compare cellular structures and their functions in prokaryotic and eukaryotic cells. | BIO.A.1.2.1 | MP2, MP3, MP4 |
| Describe and interpret relationships between structure and function at various levels of biological organization (i.e., organelles, cells, tissues, organs, organ systems, and multicellular organisms). | BIO.A.1.2.2 | MP2, MP3, MP4 |
| Describe and interpret relationships between structure and function at various levels of biochemical organization (i.e., atoms, molecules, and macromolecules). | BIO.A.2.2 | MP1, MP2,  MP3, MP4 |
| Explain how carbon is uniquely suited to form biological macromolecules. | BIO.A.2.2.1 | MP2, MP3, MP4 |
| Describe how biological macromolecules form from monomers. | BIO.A.2.2.2 | MP2, MP3, MP4 |
| Compare the structure and function of carbohydrates, lipids, proteins, and nucleic acids in organisms. | BIO.A.2.2.3 | MP2, MP3, MP4 |
| Explain how enzymes regulate biochemical reactions within a cell. | BIO.A.2.3 | MP1, MP2, MP3, MP4 |
| Describe the role of an enzyme as a catalyst in regulating a specific biochemical reaction. | BIO.A.2.3.1 | MP2, MP3, MP4 |
| Explain how factors such as pH, temperature, and concentration levels can affect enzyme function. | BIO.A.2.3.2 | MP2, MP3, MP4 |
| Identify and describe how energy is captured and transformed in organisms to drive their life processes. | BIO.A.3.2 | MP1, MP2, MP3, MP4 |
| Compare the basic transformation of energy during photosynthesis and cellular respiration. | BIO.A.3.2.1 | MP2, MP3, MP4 |
| Describe the role of ATP in biochemical reactions. | BIO.A.3.2.2 | MP2, MP3, MP4 |
| Explain mechanisms that permit organisms to maintain biological balance between their internal and external environments. | BIO.A.4.2 | MP1, MP2, MP3, MP4 |
| Explain how organisms maintain homeostasis | BIO.A.4.2.1 | MP2, MP3, MP4 |
| Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms. | SCI.3.1.9-12.B | MP1, MP2,  MP3, MP4 |
| Plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis. | SCI.3.1.9-12.C | MP1, MP2,  MP3, MP4 |
| Construct and revise and explanation based on evidence for the cycling of matter and flow of energy in aerobic and anaerobic conditions. | SCI.3.1.9-12.J | MP1, MP2,  MP3, MP4 |

**ASSESSMENTS**

**PDE Academic Standards, Assessment Anchors, and Eligible Content:** The teacher must be knowledgeable of the PDE Academic Standards, Assessment Anchors, and Eligible Content and incorporate them regularly into planned instruction.

**Formative Assessments:** The teacher will utilize a variety of assessment methods to conduct in-process evaluations of student learning.

**Effective formative assessments for this course include:** Exit tickets, projects, labs/dissections, quizzes, reflections, etc.

**Summative Assessments:** The teacher will utilize a variety of assessment methods to evaluate student learning at the end of an instructional task, lesson, and/or unit.

**Effective summative assessments for this course include:** Teacher created quizzes, labs, tests, essays, final projects, final exams