

**Warren County School District**  
**PLANNED INSTRUCTION**

**COURSE DESCRIPTION**

**Course Title:** Advanced Placement Biology

**Course Number:** 00316

**Course Prerequisites:** Biology College Preparatory, Honors Biology, and Chemistry College Preparatory

**Course Description:**

Advanced Placement Biology is offered to students who have completed Biology College Preparatory, Advanced Biology, and Chemistry College Preparatory. The College Board's Advanced Placement (AP) program provides capable and motivated students with an opportunity to pursue college level biological studies while still in secondary school. This course is a college level laboratory program that enables students to receive college credit by passing a test with appropriate scores in May of the school year.

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

**Length of Course:**     ☐ One Semester                      ☒ Two Semesters                      ☐ Other (Describe)

**Units of Credit:** 1 (Insert *None* if appropriate)

**PDE Certification and Staffing Policies and Guidelines (CSPG) Required Teacher Certifications:**  
CSPG 32 Biology

**Certification verified by WCSD Human Resources Department:** ☒ Yes     ☐ No

**TEXTBOOK AND SUPPLEMENTAL MATERIALS**

**Continue using Board approved textbook?** ☐ Yes     ☒ No (*If yes, then complete the information below.*)

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

**Title:** Campbell Biology AP Edition 11<sup>th</sup> Edition + AP Test Prep

**Publisher:** Pearson

**ISBN #:** 10:0-13-443369-6

**Copyright Date:** 2018

**Date of WCSD Board Approval:**

**BOARD APPROVAL:**

**Date Written:** 2/28/18

**Date Approved:** \_\_\_\_\_

**Implementation Date:** 2018-2019

## **SPECIAL EDUCATION AND GIFTED REQUIREMENTS**

The teacher shall make appropriate modification to instruction and assessment based on a student's Individual Education Plan (IEP) or Gifted Individual Education Plan (GIEP).

### **COURSE OVERVIEW**

*(List the content to be taught)*

#### **I. Molecules and Cells**

##### **A. Chemistry of Life**

1. Water
2. Organic molecules
3. Enzymes

##### **B. Cells**

1. Prokaryotic and Eukaryotic Cells
2. Membranes
3. Subcellular Organization
4. Cell cycle and regulation

##### **C. Cellular Energetics**

1. Coupled Reactions
2. Cellular respiration and fermentation
3. Photosynthesis

#### **II. Heredity and Evolution**

##### **A. Heredity**

1. Meiosis and gametogenesis
2. Eukaryotic chromosomes
3. Inheritance patterns

##### **B. Molecular Genetics**

1. RNA and DNA
2. Gene regulation
3. Mutation
4. Nucleic Acid Technology and Applications

##### **C. Evolution**

1. Review of evidence for evolution
2. Natural selection

### III. Organisms and Populations

#### A. Diversity of Organisms

1. Survey of the diversity of life
2. Phylogenetic Classification
3. Evolutionary Relationships

#### B. Structure and Function of Plants and Animals

1. Reproduction, growth, and development
2. Adaptations
3. Response to the Environment

#### C. Ecology

1. Population Dynamics
2. Communities and Ecosystems
3. Global Issues

## ANCHORS AND STANDARDS

### 3.1 Unifying Themes

### 3.2 Biological Sciences

#### CC.3.5.11-12 Reading Informational Text

#### CC.3.6.11-12 Writing

## ASSESSMENT

**Portfolio Assessment:** ☐ Yes ☒ No

**District-Wide Common Final Examination Required:** ☐ Yes ☒ No

**Course Challenge Assessment (Describe):** Must earn an 80% or higher on Final Exam

**WRITING TEAM:** Warren County School District Teachers

## WCSD STUDENT DATA SYSTEM INFORMATION

1. Is there a required final examination? ☒ Yes ☐ No

*\*Warren County School District Policy 9741 and 9744 state, "All classes in grades 9-12 shall have a final exam."*

2. Does this course issue a mark/grade for the report card? ☒ Yes ☐ No

3. Does this course issue a Pass/Fail mark? ☐ Yes ☒ No

4. Is the course mark/grade part of the GPA calculation? ☒ Yes ☐ No

5. Is the course eligible for Honor Roll calculation? ☒ Yes ☐ No

6. What is the academic weight of the course?

☒ No weight/Non credit

☐ Standard weight

☒ Enhanced weight