



# OHHS Science Department Course Syllabus



**Course Name: AP Biology; CWU=Biological 101 Fundamentals of Biology (5 Credits)**

**Course Code:SCO51A/B/C**

## **Course Description:**

AP Biology is a college level course that is taught in the high school. Colleges expect a student to have an “equivalent” experience to their freshman biology course (including laboratories) and to have mastered the content. The course content follows the suggested outline for a typical college introductory biology course taken by biology majors during their first year. By structuring the course around the four big ideas, enduring understandings, and science practices, I will assist students in developing an appreciation for the study of life and help them identify and understand unifying principles within a diversified biological world.

**CWU Fundamentals of Biology** - Introduction to scientific inquiry and basic principles of biology at molecular, cellular, organismal, community, and ecosystem levels as applied to humans, society, and the environment. Upon successful completion of this course, the student will be able to:

- Describe advancements in our understanding of cell biology, genetics and biotechnology and explain the practical applications of these areas in medicine.
- Compare and contrast the scientific process with other systems of thought and explain how the process of science is used to predict natural phenomena.
- Generate testable hypotheses, design experiments, collect and analyze data.
- Describe the processes and components of Mendelian Inheritance.
- Analyze and interpret scientific data.

## **Prerequisites**

Successful completion (a grade of C or better) of a first course in high school biology and one in high school chemistry and teacher recommendation.

## **Course Resources**

Campbell *Biology in Focus* 2nd Edition AP Edition

## **Course Fees**

Per Credit fee for CWU credit

## **Course Outline/Instructional Units**

**Big Idea 1:** The process of evolution drives the diversity and unity of life.

**Big Idea 2:** Biological systems utilize free energy and molecular building blocks to grow, to reproduce and to maintain dynamic homeostasis.

**Big Idea 3:** Living systems store, retrieve, transmit and respond to information essential to life processes.

**Big Idea 4:** Biological systems interact, and these systems and their interactions possess complex properties

These ideas will be covered in units on cell structure, cell transport, cell energy (photosynthesis and cellular respiration), cell communication, DNA, DNA technology, genetics, evolution, body systems (immune, endocrine and nervous), and ecology.

**The Investigative Laboratory Component:** The course is also structured around inquiry in the lab and the use of the seven science practices throughout the course. Students will conduct a minimum of eight inquiry-based investigations (two per big idea throughout the course). Additional labs may be conducted to deepen students' conceptual understanding and to reinforce the application of science practices within a hands-on, discovery based environment. The course will provide opportunities for students to develop, record, and communicate the results of their laboratory investigations.

### **Science Practices (SP)**

1. The student can use representations and models to communicate scientific phenomena and solve scientific problems.
2. The student can use mathematics appropriately.
3. The student can engage in scientific questioning to extend thinking or to guide investigations within the context of the AP course.
4. The student can plan and implement data collection strategies appropriate to a particular scientific question.
5. The student can perform data analysis and evaluation of evidence.
6. The student can work with scientific explanations and theories.
7. The student is able to connect and relate knowledge across various scales, concepts and representations in and across domains.

### **Major Assessments**

Each unit will end with an assessment. Labs will also be included as an assessment. Only major assessment worth 100 points can be redone.

### **Extra Help**

Students are encouraged to take advantage of tutoring opportunities. Students are also encouraged to form study groups and these groups are welcome to meet in my classroom after school. One-on-one help will always be offered in class and after school most days.

### **RE-DO POLICY:**

OHHS is an effort based school where we believe all students can learn. We also know that students learn at different rates. Thus, we are implementing a re-do policy that recognizes the needs of individual learners.

- 100% Re-do
  - Major Assessments worth 100 points (with the exception of the Final semester exam)
- Teachers may:
  - require completion of supporting assignments prior to re-do opportunities for students to show they can meet the standard.
  - require students to complete redo of work outside of class time.
  - limit the number of redo opportunities for each assignment.
  - assign zero grades when students choose not to do key assignments and/or assessments to standard.
- All opportunities for re-do work will come with a deadline as assigned by the teacher.

## Weighted Categories

Category	Percentage of Overall Grade
Assessments	70
Daily Work	30

## Grading Scale:

Advanced Placement Grade Scale	
Grade	Percent
A	90-100
A-	85%-89.99%
B+	83%-84.99%
B	77%-82.99%
C+	73%-74.9%
C	67%-72.99%
C-	65%-66.99%
D	55%-64.99%
F	54.99% and Below

## CWU:

Letter Grade	GPA Credit	Transcript Explanation	Definition of letter grade / Policy Statement
A	4.0	Excellent	Meets all objectives of the course and fulfills all requirements; performs at a level that reflects excellence
A-	3.7		
B+	3.3	Good	Meets all objectives of the course and fulfills all requirements; performs at a high level
B	3.0		
B-	2.7		
C+	2.3	Satisfactory	Meets all objectives of the course and fulfills all requirements; performs at a satisfactory level
C	2.0		
C-	1.7		
D+	1.3	Marginal Pass	Makes progress toward meeting the course objectives; fulfills course requirements at a substandard level
D	1.0		
D-	0.7		
F	0.0	Failure	Fails to meet the course objectives; does not fulfill course requirements

**OHHS PLAGIARISM POLICY:**

Any student who knowingly turns in any work that has been done by someone other than himself or herself, and fraudulently represents it as his/her own, shall be considered to have cheated. Cheating also includes: aiding someone else in cheating, the use or preparation of written, pictorial, electronic or other materials not authorized by the instructor during a test or assignment, the use of testing materials obtained previous to the test date, or plagiarism of any kind. Students found cheating will also be subject to an office referral, which could result in a suspension. As an effort based school, students who have plagiarized/cheated must still demonstrate their learning. Thus, students will be given the opportunity to complete the work. This will fall under the "Late Work Policy" of the teacher where total possible points may be reduced.

**CWU**

College in the High School (CiHS) is a dual credit program that allows students to earn college credits while still attending high school. Grades earned will be entered on a high school transcript as well as on a Central Washington University transcript. College in the High School students are able to access college resources such as the library, online academic tutoring and speaking with an advisor, just as any other CWU on-campus student. Students will have an opportunity to complete an electronic end-of-term student course evaluation for each CiHS class. Please make sure to set up your MyCWU when you receive your welcome letter.

As a student at Central Washington University, you have the responsibility to be familiar and comply with all university policies and procedures, specifically those governing student behaviors. Failure to comply with these expectations may result in university contact and action to address the behavior, which could include removal from the institution.

Please visit this website for a detailed description of all CWU student rights and responsibilities:

<http://www.cwu.edu/student-rights/>

Please refer to our website for CWUs Academic Integrity policy:

<http://www.cwu.edu/student-rights/student-responsibilities-university-policies>

**Central Washington University Resources**

CiHS Office	(509) 963-1351	<a href="https://www.cwu.edu/runningstart/">https://www.cwu.edu/runningstart/</a>
Advising	(509) 963-1351	
Tutoring		<a href="https://www.cwu.edu/learning-commons/">https://www.cwu.edu/learning-commons/</a>
Library		<a href="http://www.lib.cwu.edu/">http://www.lib.cwu.edu/</a>
Transcript Records	(509) 963-3001	<a href="http://www.cwu.edu/registrar/request-transcripts">http://www.cwu.edu/registrar/request-transcripts</a>