

Instructor: Mr. Richards

Office: D106

Email: [adam\\_richards@wrsd.net](mailto:adam_richards@wrsd.net)

Extra Help: After School M, T, Th 2:15-2:45, By Appointment

### Course Description

Advanced Placement Biology is the high school equivalent of a first-year introductory biology course taken by students majoring in the sciences. AP Biology is taken after successful completion of biology and chemistry courses. There is a significant laboratory component associated with this course; students will spend approximately 25% of class time working on laboratory investigations.

*Students who are successful on the AP Biology exam may have the opportunity to undertake upper-level courses in biology or to register for courses for which biology is a prerequisite; students may also fulfill a basic requirement for a college laboratory science course or be given credit at their university. Please check with your prospective institutions for specific opportunities.*

### Course Sequence

1. Statistics and Experimentation
2. Chemistry of Life
3. Cell Structure and Function
4. Cellular Energetics
5. Cell Communication and Cell Cycle
6. Heredity
7. Gene Expression and Regulation
8. Evolution and Natural Selection
9. Ecology

### Textbook

- Morris, et. al. Biology for the AP Course. First Edition, BFW, 2022

### Required Materials

- Chromebook
- Scientific (or graphing) calculator

### Grading Policies

All final grades for year long courses are broken down as follows:

- Semester 1: 50%
- Semester 2: 50%

Each semester grade is broken down as follows:

- Quarter 1: 40%
- Quarter 2: 40%
- Midterm/Final: 20%

Each quarter grade in this course is evaluated in the following weighted categories:

- **Major Grades (70%):** Major grades are grades that are focused on *content mastery*. This includes exams, quizzes, and formal lab presentations (reports, presentations, posters, etc.) This grade reflects how well you understand the material presented.
- **Minor Grades (30%):** Minor grades are grades that are focused on *learning content*. This includes, homework, online labs, smaller lab experiments, and other classwork. This grade reflects the effort you are putting into learning the material

**Exams (Major):** This category assesses your understanding of course content. They will be announced in advance.

Exams will be split into two parts: multiple choice and free response, each section is of equal value (MCQ = 100 pts, FRQ = 100 pts). Each section is designed to be completed during a single, 45-minute block. (1 exam = 2 blocks total) The MCQ section will consist of approximately 25 questions. The FRQ section will consist of 2-3 questions: one long response question and two (or more) shorter response questions. *This reflects the pacing of the AP Biology exam.*

**Laboratory Work (Major and Minor):** Laboratory work evaluates both your understanding of scientific philosophy and experimentation and how they connect to the current topic of study. Lab work consists of three types of assignments, detailed below:

**Lab Reports (Major):** For each major laboratory exercise, you will be required to write a lab report. This will be completed with your lab partner(s). More details on format will be discussed during the first lab. There will be one or two major reports per quarter.

**Lab Exercises (Minor):** These are smaller experiments meant to highlight a specific technique or topic of study. Reports are not required.

**Online Exercises (Minor):** Some labs are cost prohibitive or present unique safety issues not easily addressed in the high school laboratory. In order to gain experience working with data generated from these types of experiments, we have access to an excellent online lab program (Pivot Interactives) that we will use throughout the year. These will all be self-contained assignments on the platform itself.

**Classwork (Minor):** We will work on a variety of in class exercises, worksheets, and case studies. The majority of this work will be done in class, though in some cases it may need to be completed at home.

**Homework (Minor):** Homework will consist of reading and answering questions related to the current topic. Homework will be looked at prior to the start of class and reviewed after the check. More details will be provided prior to the first assignment.

## Classroom Policies

*Plagiarism and Academic Integrity:* Academic integrity is taken seriously at WRHS and in this course. Plagiarism of any kind is not tolerated and any assignment that shows evidence of plagiarism from any source (including, but not limited to, other students, the internet, published materials) will be given a zero, and parents and WRHS administration will be notified. This applies to assignments that are plagiarized in part.

### Make Up Work

- If you are absent, it is your responsibility to see me upon your return to obtain the necessary missing work.
- If you are absent the day a homework/classwork assignment is due, you must turn it in the next class day.
- If you miss a lab, you must see me about how to make it up. It will vary depending on the lab.
- If you miss a test, you must schedule a time to take it within one week.

### Late Work

- Late work is not accepted under normal circumstances. If there are extenuating circumstances, please see me.

### Behavioral Expectations

- Proper classroom behavior is expected at all times.
- Food and drink (except water) is prohibited at all times, except during designated snack periods. Students may never eat or drink (including water) at lab tables.
- **Electronic devices are not permitted. All phones must be placed in the assigned pouch. You may be allowed to use electronic devices for certain assignments. If you are repeatedly using the device off task, you will not be able to continue using the device.**

### Tardiness

- You are expected to be in class when the bell rings.
- If you are tardy more than two times in a quarter, you will be referred to administration.

## WRHS Policies

### WRHS School Mission Statement

*"Wachusett Regional High School is committed to an educational process that fosters independence and responsibility in our students. By offering diverse, challenging, academic programs and rich co-curricular activities, WRHS strives to provide students with the skills and knowledge to achieve their potential as life-long learners."*

### WRHS Student Learning Expectations

- Exercise responsible citizenship
- Communicate effectively
- Think critically and solve problems
- Think creatively
- Collaborate and learn actively
- Use technology effectively

### WRHS Core Values

- Critical Thinking & Problem Solving
- Communication
- Collaboration
- Creativity and Innovation
- Citizenship and Responsibility

*WRHS Science Department Philosophy*

The WRHS Science Department strives for excellence in the science education of all its graduates. We recognize the fact that science is a human endeavor designed to achieve an increasingly comprehensive and reliable understanding of the human species and its environment. Scientific literacy is an important key to a functioning, technology-based society.\

*WRHS Science Department Homework Policy*

"The WRHS Science Department believes that homework is necessary to help our students achieve at the high academic level necessary for college preparation. Schoolwork done outside of class time provides training in study habits, skills and discipline; it reinforces and increases background knowledge and conceptual understanding, and it provides experiences in problem solving and self-monitoring. In particular, it provides students with an opportunity for them to take personal responsibility for their own achievement."

*Academic Integrity Policy*

All students' academic work must reflect their own honest efforts. Cheating and plagiarism in any form will not be tolerated. This includes, but is not limited to copying homework, papers, lab reports, quiz or test answers; acquiring or disseminating quizzes or tests before they are administered; or using information from the Internet or other outside sources without proper attribution.

Any student known to have cheated will be subjected to penalties, up to receiving "0" for the work. Possible penalties will be made known to each class by the teacher and will be included in the course syllabus.

Students who collaborate with others in cheating by allowing their papers to be copied or by other means will be subjected to penalties commensurate with their involvement, which may include the student receiving "0" for the work or suffering significant grade reduction.

While AI has been a fixture in modern life for many years, it has recently become imperative that the high school set expectations and parameters for its use. While traditional forms of AI can be used in a positive manner to increase efficiency, the aim of this new policy is to limit and control the use of generative AI. Generative AI, such as ChatGPT, is able to produce content (written, audio, visual) which bypasses the creative functions of its users. Similar to the school's policy on plagiarism, students at WRHS are responsible for submitting their own work, displaying their own understanding, knowledge and creativity. Like with plagiarism, teachers will be monitoring the use of AI within their classroom and student work. **It is the responsibility of the student to prove that AI was not used** by showing the evolution of their work through outlines, drafts, editing, proper citations, etc. If the student admits to using AI or cannot sufficiently defend the authenticity of their work, the consequence will be the same as plagiarism.

In all cases, the principal or the class administrator along with the department head and teacher will be informed about both the incident and the penalty imposed, and the parent/guardian will be notified. The administration reserves the right to impose other penalties up to and including removal from the course, removal from honor societies, and loss of eligibility for scholarships with "honor" as criteria.

