**AP Biology Syllabus 2019-20**

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AP Class Introduction

Welcome to AP Biology, and congratulations. AP Biology is designed to give you analytical tools and practice which will prepare you for the AP exam in May and aid you as you continue your scientific endeavors. Former students continually report that taking AP Biology was excellent preparation for their college science classes and our pass rate is the highest in the school.

Biology will always be a part of your life (no pun intended). Much of the skill and knowledge gained this year will be applied throughout your lifetime, no matter what your career choice. A solid understanding of biology and how humans fit into Earth’s biome is critical to the healthy survival of humans and all other organisms. AND, some of the world’s most pressing problems will be solved by biologists. To this end I have established several goals. In this AP Biology course, I hope that you will:

\* develop an understanding of basic biological concepts

\* acquire a scientific vocabulary that allows you to communicate scientific concepts

\* apply the scientific process to solve problems

\* become better prepared for college-level study

\* gain confidence in your ability to excel on the AP Biology exam held May 13th

\* think critically, challenge assumptions, and ask questions

**Important information about workload in this class:**

*AP Biology is a demanding college level course.* Students should expect a workload equal to what would be encountered in college. Extra help is available from me during tutorials, study hall and by appointment. In this class, students typically spend 1 ½ to 2 hours of their own time per hour spent in class. As we spend a little over 4 hours in class weekly, *you should expect to have 6-8 hours of work to do per week outside of class.* If you cannot commit 6-8 hours per week of afterschool time to this class. It is imperative that you prepare for class each day by reading for about 1 hour each night. Do not procrastinate on your reading assignments! Cramming all the week’s dense reading into one night doesn’t work well for your brain. Plan on reading or reviewing even if no activity is officially assigned. The most successful students review any reading done so far in the chapter, read *one new* section of a chapter a night, take notes on their own or use the provided reading guide, and then do the concept checks at the end of each section. Some of these will be included in your reading guide already. Flash card for important vocabulary and content can also be handy!

**Required Materials (have every day):**

**In class:**

* 3 ring binder dedicated just for this class (for notes, and to keep track of all work). It should have lined paper (100 sheets or so) and graph paper (30 sheets or so).
* Eight (8) dividers, one for each unit we will cover
* A bound composition book for recording the labs we will do.
* Pens, pencils, and highlighters
* A calculator – the one you use in math is fine.

**At home:**

* Textbook - Biology in Focus, and Pearson’s AP Biology Test Prep book. We will have a few extras in the classroom if needed.
* Access to a computer and the internet. See me if this is a problem and we will work around this.

**Rules**.

1. **Be kind!** Learn to work with every person in class and respect and include everyone.
2. **Be bold!** Be ready to participate in discussions, share your ideas and ask questions. In this classroom, we need to have room to learn and explore before we “know the right answer”. The discussion, and learning, begin when someone is bold enough to share without worrying whether they are “right” or not.
3. **Take care!** We co-create our leaning environment. Let’s take care of it, each other, and ourselves.
   1. Attendance is the key to success – take care and be here!
   2. Treat yourself and all organisms with care. No eating/drinking in lab. There will be times when

eating/drinking is not allowed.

* 1. Clean up after labs!
  2. All electronics should be off and away to protect our learning.
  3. **You** are expected to do **your own** work. (No cheating, no copying homework, no plagiarism).

**Grades**

Most assignments will be graded according to the College Board Advanced Placement grading scale of 1-5. Specific criteria will be given for assignments, but the general scheme is:

**Demonstrated Competence =** 5pts (~A Exemplary response, evidence of deep understanding)

= 4pts (~B Competent response, evidence of thorough understanding)

**Satisfactory Response =** 3pts (~C Minor flaws but mastered key idea)

**Inadequate Response =** 2pts (~D Serious flaws but some understanding demonstrated)

= 1pt (Attempt made, but little understanding demonstrated)

The grading rubric translates to letter grades as follows:

A (4.7-5) A- (4.5-4.6)

B+ (4.2-4.4) B (3.8-4.1) B- (3.5-3.7)

C+ (3.3-3.4) C (2.8-3.2) C- (2.5-2.7)

D+ (2.3-2.4) D (1.9-2.2) D- (1.7-1.8)

Grading categories for final grade are:

Daily work, Homework and Practice Assignments 5%

Labs (including participation)/Projects 15%

Quizzes/Tests 80%

Quizzes and tests may be cumulative to help you prepare for the AP Exam.

**Labs:** Block days are often lab days – please minimize absences due to appointments if at all possible. Lab participation grades includes your presence as well as any prelab assignments (background, question, variables, hypothesis, procedure) and data

**Missed work:** You need to attend class every day and be on time. Excessive absences or tardies will make it very difficult for you to keep up with the workload of this course. **If you are absent, it is your responsibility to make up all assignments.**

Each unit in this course builds upon prior units, so it is important for you to keep up and make up any missed work immediately. Please discuss missed work with me as soon as you return to class. **Any missed assignments, including tests, quizzes and labs, should be made up within one week of your return to class**. *All quizzes, tests and late work must be turned in within one week of the end of each quarter.*

I strongly recommend obtaining the phone/email of at least two other people in the class who you can call in the event of an absence. You may also email me, but please understand that it may take up to 72 hours for me to respond to your emails.

I do allow test/quiz retakes on weekly quizzes (I may not on unit exams/semester finals), but they will be short answer/essay tests – not multiple choice. To retake a test/quiz, you must show you have completed assignments related content. I may count the AP Exam as the final. For those who do not take the AP exam, a cumulative AP style final will be given on the same day as the AP exam.

**Academic Honesty:** You **are** encouraged to form study groups. You are allowed to **collaborate** on (but not copy) lab exercises. Data among lab partners is expected to be identical. With this exception, *all work done in this class is expected to be* ***original*** *or* ***attributed*** *to its original source.* Any violation of this will result in an automatic 0 on the assignment in question. Cheating or plagiarism on *any* assignment will result in an academic referral and notification of parents and may result in a “0” on that assignment. The most common plagiarism I see is copying and pasting from the internet on a report without citing the source or changing just a few words from a copied text. ALL assignments must be in your own words and all sources should be cited. I check!!

**Course Content Schedule**

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| --- | --- | --- | --- | --- |
| UNIT | Chemistry of Life | Cell Structure and Function | Cellular Energetics | Cell Communication and Cell Cycle |
| Chapters in Biology in Focus | Ch. 2-3 | Ch. 4, Ch. 5.1-5.5, Ch. 25.1 | Ch. 6-8 | Ch. 5.6, parts of Ch. 31.1, 31.4 (plant hormones and defenses), Ch. 35.2-35.3 (immune system activation), Ch. 37.4 (neurotransmitters), Ch. 33.5 (blood glucose level regulation)  Ch. 9 |

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| --- | --- | --- | --- | --- |
| UNIT | Heredity | Gene Expression and Regulation | Natural Selection | Ecology |
| Chapters in Biology in Focus | Ch. 10-12 | Ch. 13-16, Ch. 17.1-17.2, Ch. 18.2-18.6 | Ch. 19-24 | Ch. 39-43 |

*\*Adapted from Mary Wuerth, APSI 2019*

