**AP BIOLOGY Syllabus**

**Southern Guilford High School 2023-24**

Room: 205 Teacher: Ms. Prince Email: stilest@gcsnc.com

***Welcome!***

*Course description*

 AP Biology is the equivalent of a freshman-level collegiate general biology course. Students can expect challenging content, a rigorous pace, extensive lab work, a significant time commitment to studying and reading, and MANY REWARDS for putting in all of the effort it takes to be successful in AP Biology. Though the course is composed of many units, students will recognize that each topic in the course is designed around the AP Biology Curriculum Framework, and is centered on the four big ideas:

**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.

Each big idea is supported by enduring understandings and essential knowledge, which are taught in relationship to each other through 8 units. These units are listed below, and are accompanied by their corresponding AP Exam weights as listed by collegeboard.org.

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| --- | --- | --- |
| Unit Number | Unit Name | Exam Weight |
| 1 | Chemistry of Life | 8-11% |
| 2 | Cell Structure and Function | 10-13% |
| 3 | Cellular Energetics | 12-16% |
| 4 | Cell Communication and Cell Cycle | 10-15% |
| 5 | Heredity | 8-11% |
| 6 | Gene Expression and Regulation | 12-16% |
| 7 | Natural Selection | 13-20% |
| 8 | Ecology | 10-15% |

. If a student has more in-depth questions or is confused about content, I invite them to ask about scheduling a conference with me.

*Canvas*

 We will be utilizing our Canvas course online on occasion. There may be homework assignments, reminders, or shared data posted there. “I didn’t have internet” will not be an acceptable reoccurring excuse. Additionally, students will be receiving unit outlines with their homework assignments in advance so that students may budget their time responsibly.

 I do my best to respond to CANVAS messages within 12 hours or so.

*Materials*

 2 - 2.5 inch 3 ring binder 4 dividers

 Pencils Scientific calculator

 Composition notebook

 **Regular internet access**

 *Teacher wish list (optional): Quart Ziplock bags, tissues, markers, colored pencils*

***AP Biology Exam***

*Date*

 Your exam is Wednesday, May 10th, at noon.

*Set-Up*

 The AP exam is 3 hours long and has 2 sections. Each section will be 90 minutes long.

 You will be allowed to use a calculator during the exam.

 Section I contains 60 multiple choice questions. Some of these will require you to perform calculations.

 Section 2 consists of 6 free-response questions. Two of these will be long free-response, and 4 will be short free-response.

*Scoring*

 Each of the sections will be 50% of your AP exam score.

*College Credit*

 Different colleges have different requirements for AP credits. Additionally, it is common for credit to be awarded differently for biology majors and non-biology majors. For additional information: visit <http://collegesearch.collegeboard.com/apcreditpolicy/index.jsp> to find information about AP placement and credit policies at your prospective colleges and universities.

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| --- | --- | --- |
| **College** | **Minimum Score** | **Credit Hours Awarded** |
| Duke | 4 | Biology 20 |
| NC State | 4 | 8 (BIO 181/181L and BIO 183/183L) |
| UNC-Charlotte | 4 or 5 (5 for Biology majors) | 8 (BIOL 2120, BIOL 2130 or 1115, and labs) |
| UNC-Chapel Hill | 3 or 5 | 4 hours for a 3 or 4 (BIOL 101, 101L), 8 hours for a 5 (BIOL 101, 101L , 279, 279L) |
| UNC-Greensboro | 3 | 4 hours for a 3, 8 hours for a 4 or 5 |
| Wake Forest | 4 | 4 (BIO 111)  |

***AP student expectations***

*Workload*

 Most colleges recommend a 3:1 work ratio for all college courses. This is 3 hours of work/study outside of class for every 1 hour of class. While I do not intend to give students 3 hours of homework regularly, it means students should expect to have some kind of work every night for AP Biology. Previous students have said 5-7 hours per week is to be expected. However, students who take the time to look at biology content *every night*, have seen a higher rate of success in this class.

 Homework can be minimized by focused work ethic while in class, and time management skills outside of class.

 Students active in extra-curricular activities will need to be mindful of their time management, particularly with lab notebooks and projects. Students can expect a minimum of 5 days to complete larger projects. Students will be informed if they will be given time in class to complete a project. Do not assume you will have time in class.

 Any student looking for a suggested timeline on how to complete a project with minimal stress by spreading out the workload is more than welcome to ask me for time management assistance!

*Late work*

 Homework and take-home assignments and projects are expected to be completed by the start of class on their due date.

 Projects will NOT be accepted late without prior contact and/or extreme extenuating circumstances. Showing up the day the project is due with a “whoops” attitude and no prior communication… I’m not accepting the late project.

Extenuating circumstances: If circumstances arise that prevent a student from completing their work for more than two days (even if they are in class for those days), I will expect contact from a parent/guardian at some point in the following week. When this contact occurs, we (being the parent(s), student, and teacher) can find a reasonable date for make-up work completion.

*Make-up work*

 Make-up work is ultimately the responsibility of the student. Upon the student’s return to school, several things should occur.

* Student should turn in any work that was due during their absence (if the assignment was received prior to their absence).
* Student should ask Ms. Prince about missed assignments and clarify due dates on these assignments.
* A student can miss ONE lab. After that, a complicated replacement project will need to be created to make up the lab. (While this is being created… you get a 0… try not to miss lab days.
* Expect time allotted for make-ups to reflect the number of days missed, +1. Missing one day of class will bring 2 days of make-up time.
* Student should schedule a time after school to make up any missed quizzes/tests. These should be made up within 10 days. Ms. Prince will remind the students of these upcoming appointments 2 days prior, and the day of, the appointment. If the assessment is not made up after 10 days, a “0” will be placed in the gradebook as a reminder that the assessment is still missing. At this point, it becomes student responsibility initiate contact with Ms. Prince to schedule a new time to make up their assessment. Additionally, test corrections will not be available. Assessments must be made up before the next unit test occurs. The 0 will be replaced when the assessment is made up. If the student neglects to make up their assessment, the “0” will remain.

*Student self-advocacy /conferences/Parent conferences*

 One of the greatest challenges students face in college is that of self-advocacy. In a university setting, a student is expected to speak to their professor if they have any concerns about their grades, complications in comprehension, or other questions. However, it is notoriously difficult for college freshmen to approach their professors. They often do not personally know the professor in question, and in larger universities, professors rarely know student names, let alone grade or extra-curricular situations. Additionally, prior to the college setting, most students have not needed to self-advocate, to present questions and evidence in discussion of their concerns with educators.

 For this reason, students in AP Biology will practice self-advocacy before parent contact about any concerns regarding the course. This means that a student-teacher conference will prelude a parent-teacher conference, or even a string of parent-teacher e-mails.

 Self-advocacy will include students requesting an in-person conference with Ms. Prince, and a topic of discussion for the conference. This should be done before parent contact.

At the conference students should with questions and the intent to find a way to improve their AP Biology experience.

Please note: I want to work with students to succeed. I want to help them identify their strengths and shore up their weaknesses in a way to maximize their learning in my course. I am very willing to tutor after school, find extra resources, or take requests for certain kinds of review work/projects to help my students. On the student end, I expect them to take advantage of opportunities created for them.

After the student conference, I will e-mail the student and their parent/guardian the agreement that the student and I reached during our conference. Any additional parent questions related to the conference topic will be answered at that point. If additional conferences are needed to follow up on the topic, we can schedule them at that time.

*Academic Integrity*

 Students are expected to do their own work in AP Biology. While collaboration is greatly beneficial to the scientific process in lab situations, copying is not.

If you send me a link to a biology related article (from a trustworthy source) published this year or last year with a paragraph write up about how the contents of the article could affect society if everyone read it, I will give you 5 bonus points on a quiz. This is due by Friday, September 2nd. This opportunity becomes invalid if it is announced to the entire class.

 In particular, independent work is expected for tests and quizzes. Students suspected of cheating will receive a 0 on the assignment if there is proof of a breach of integrity. As work cannot be distinguished between the cheater and the cheatee, both parties will be considered guilty.

*Classroom Rules*

 Phones: Cell phones should not be seen or heard inside the AP Biology classroom during lecture components of the class. Phones may be used with SPECIFIC permission from the teacher for lab documentation purposes. Students often use their phones for stop-watches or to take pictures of results. This is permitted provided I am told first and students use their phones responsibly. If students are found to be using their phones irresponsibly, they may lose privileges for labs, and will be stuck drawing results.

 Food: Food has no place in a lab setting. Food is permitted in my class on days when we do NOT have lab.

 Bathroom: In the theme of treating AP students like college students, there are currently no restrictions on bathroom usage beyond the school’s policy of not using the restrooms in the first/last 10 minutes. A student who needs to use the restroom may get up, sign out, take the pass, and wave at me on their way out of the door. A student who misses instructions because they are not present will not have instructions repeated to them. A student who leaves during a timed assignment will not have additional time added. Use this right responsibly.

***Grading***

*Point Scale*

 All grades in AP biology use a point scale in their respective categories.

 This means that a small homework assignment consisting of 5 questions will be worth around 5 points. A perfect score would be 5/5. A mid-sized homework assignment consisting of around 15 questions will be worth 15 points. A perfect score would be 15/15. Because both assignments are homework, they would be added together to find an overall grade. A perfect score would be 20/20, or 100%. This means that one question wrong, on EITHER assignment, would have the same effect, changing the total grade to 19/20, or a 95%.

 Overall this means that longer assignments will have more points, and thus will weigh a little more in their respective categories. It also means that short assignments (such as 5 question quizzes) will not make as great of an impact on a category grade if one quiz is below traditional student performance.

*AP Biology courses*

 If you look in PowerSchool, you will notice that AP Biology is listed as two separate classes. These two classes are listed as AP Biology and AP Biology Lab. These will be referred to as the “Lecture” and the “Lab” grades. This is a traditional set up for colleges to use. Students have the option to either take the lab course for an actual grade, or as a pass/fail course.

 The AP lab is weighed on a regular, 4.0 scale, not an honors or AP scale. For this reason, even a 100 grade in the lab section of the class may negatively impact a high performing student’s GPA. Students will have the independent choice to either take the pass/fail that will not affect GPA, or to take a letter grade. If they have any questions about this, they should speak to a guidance counselor.

***Grade Breakdown:***

 Assessments: 35%

 Quizzes: 15%

 Classwork: 20%

 Homework: 10%

 Lab work: 15%

 Participation: 5%

*Assessment Details*

 Lecture assessments will consist of large projects and AP level tests. These test questions are written by the College board, not Ms. Prince. All tests given in AP Biology will reflect the style of the AP exam. This means they will all have multiple choice and free response questions present. As the year progresses, students will begin to be restricted in their time to take these tests as it reflects a more realistic AP experience. At the start of the second semester, extra time on tests will not be permitted.

 While we practice some multiple-choice analysis in class, some students may require additional assistance in dissecting the questions. If a student struggles with the wording of AP multiple choice questions, they are more than welcome to tell me, we can focus on these after school.

*Quiz Details*

 Quizzes will consist of short pop quizzes (meant to check homework comprehension), longer unit comprehension quizzes, and smaller projects. Please note that all projects will be specified as assessment or quiz weights when the assignments are received so no confusion is present. This section will also contain practice FRQ’s later in the year.

*Classwork Details*

 Classwork includes small practice assignments initiated in class and worked on for 15 minutes or more. If a student uses their time poorly, they may need to finish classwork at home. This classwork would be turned in the following class period, in addition to their regularly assigned homework. Classwork will also contain spontaneously collected warm-ups.

*Homework Details*

 Homework includes online comprehension check questions, vocabulary, or other small assignments handed out near the close of class each day. Students who use their time wisely may be able to get part of their homework done in class on certain days.

*Lab work Details*

 Lab work is anything we do in/with lab activities. The contents of this section may change based on student decisions to take a pass/fail for the lab or an actual grade.

*Participation Details*

 Participation in AP Biology is not a free grade! Work completion is graded in the aforementioned categories, and does not directly impact a participation grade. Students will receive a single participation grade near the end of the quarter. In AP Biology, two things will contribute to a participation grade: warm-up review (50%), and partner rotation (50%). .

 ◊ Students should expect a warm-up of some sort every non-test day. When warm-ups are completed, we will review them as a class. Students volunteering answers during this portion of class will contribute to their participation grade. Full marks in this category component will involve regular contribution to discussion, ideally more than once per week.

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*Extra Credit Opportunities*

 Extra credit is available in AP Biology, but is not a “quick fix” for an undesirable grade. It will require work and effort on the part of the student. Extra credit is not available for participation or homework categories.

All extra credit projects must be turned in three days before the end of the quarter.

Extra credit can be attained in two different ways, test corrections and enrichment projects.

Test corrections are available after each test for the multiple choice component of the test. Each multiple choice question can be corrected for half credit. Grades will be raised to a maximum of 80% of the points available for each test. Corrections will not be available for blank free response questions. Students must work with Ms. Prince to correct free response questions. To receive credit for a corrected question, several components must be addressed.

1. State your original answer
2. Explain why you chose this answer. (“I guessed” is not an explanation.)
3. Take another look at the question. What knowledge is actually required to answer the question?
4. What is the correct answer to the question?
5. Why is this the correct answer?

Enrichment projects include student research and presentation on a case by case basis. Any student wishing to complete such a project will need to speak to me for further details.

Examples of enrichment projects I’ve accepted in the past have included:

* Unique animal profiles
* Reviewing a “biology in the news” article
* A research paper about a personal interest topic in biology that could teach Ms. Prince something.
* A review game about one of our AP biology units.
* Designing and conducting an original science experiment. You will need to check in with Ms. Prince before actually conducting the experiment to ensure that it is of appropriate quality.