

AP Biology Course Syllabus

Course Title:	3830 AP Biology
Department:	Science Department
Instructor:	Dr. Tara Mann
Grade Level:	UC approved Laboratory Science (Area D), NCAA Core Course approved
Pre-requisites:	1) B both semesters in Honors Biology OR A- both semesters in Biology; 2) B both semesters in Honors Chemistry OR A- both semesters in Chemistry; 3) Completion of the AP contract

Course Description:

Welcome to AP Biology! This is a college level accelerated lab science course designed to teach the principles and skills of biology in preparation for the College Board AP Exam in May. In this course, you will develop a conceptual framework for modern biology and recognize unifying themes that integrate the major topics of biology. Primary emphasis in this Advanced Placement Biology course is on developing an understanding of concepts rather than on memorizing terms and technical details. We will explore the process of science gaining recognition of unifying themes that integrate the major topics of Biology. We will also develop skills to apply biological knowledge and critical thinking to environmental and social concerns. The course has the same major themes and topics covered by college level Biology courses including 1) Molecules and Cells 2) Heredity and Evolution and 3) Organisms and Populations. The course involves extensive lab work and the pace of this course is intense. You will be required to do extensive outside reading and to take the AP Exam in Biology.

Instructor Background:

I have taught a range of life sciences courses including biology, medical microbiology, biochemistry, global health, cell biology and molecular biology. When I was a bench scientist, I studied the parasite *Toxoplasma gondii* (you probably have never heard of it but 50% of people are infected!) and I also worked on connections between cells in the lens of the eye. I have a special interest in global health, especially neglected tropical diseases. I look forward to working with you as we explore biology in the context of real-world problem-solving. My educational background includes a PhD in cellular biology from the University of Alabama at Birmingham ('02) and a BS in biochemistry and molecular biology from Mississippi State University ('92). I have taught medical microbiology, global health, biochemistry, biology, and cellular biology at the college level (Harvard, Worcester Polytechnic Institute)

Materials (in addition to a personal mobile device):

1. Pens (blue or black), No. 2 pencil
2. Binder paper for classwork/notes

Course Goals and Outcomes:

The goals of AP biology are to help students develop a conceptual framework for modern biology and to gain an appreciation for science as a process. The College Board has organized the AP Biology course around a Curriculum Framework that is broken down into 4 Big Ideas or Unifying Themes:

- 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.

The course is structured around hands-on inquiry labs that will constitute 25% of instructional time and are guided by seven science practices outlined by the College Board. These labs are inquiry based, emphasizing collaboration, hypothesis development, data collection, analysis and presentation.

Grading: All students will have course assignments including homework, classwork and lab write-ups along with unit exams, which will comprise 80% of your grade. Your semester final exam will contribute the remaining 20%. Your final grade will be determined according to Serra High School grading guidelines with a score 93% in the course you are guaranteed an A, 90% an A-, 87% a B+, 83% a B, 80% a B-, 77% a C+, 73% at C, 70% C-, 67% a D+, 63% a D, 60% D- and 59% or below an F.

Assignments: Home and class work will be assigned regularly. All homework is due at the beginning of class at our next class meeting unless otherwise stated on the course website. Should you need the use of multimedia for an assignment, it is your responsibility to load and test-run the assignment before it is due.

Problems with technology will not be accepted as an excuse for late work.

Absent work: If you are absent, it is your responsibility to turn in any late assignment (for excused absences only) within 2 class meetings of your return. It is ultimately the student's responsibility to make arrangements with the teacher for all make-up work, including major tests.

Late work: Late work will only be accepted at a loss of 10% per class meeting. After the end of the grading period, late work for that period will no longer be accepted. Corrections and regrades: Students will need to ask for the opportunity to correct any homework that is below a C grade. If done well, this will allow them to achieve a maximum of a B grade. For all exams excluding the final exam, students may request a regrade. A regrade will result in a complete review of the exam and your score could go up or down. For most exams, students will be allowed corrections for ½ their points back.

Bring Your Own Device (BYOD): Devices must be put away in your backpack at the start of the period—when the bell rings. You are only allowed to use your device when permitted by the teacher. You must come to class with a charged device (you can charge your device on your own time in the library or room 200A).

Inappropriate Use of Either Cell Phone or Device: Cell phones, smart phones, iPods and iTouches must be silenced and out of sight unless they are required by a teacher for an educational purpose.

- First Offense: two (2) hours of detention and the device will be returned after the first hour of detention has been served
- Second Offense: four (4) hours of detention, the device will be returned after the first hour of detention is served and the remaining three (3) hours of detention will be served on the next scheduled Saturday detention
- Third Offense: six (6) hours of detention, device will be returned after the first hour of detention has been served and the remaining five (5) hours of detention will be served on the next scheduled Saturday detention or at a time determined by the Dean of Students" — Student Handbook Pg. 47

Wired Headphones & Other Similar Listening Devices

As stated in the Student-Parent Handbook, wireless headphones, earbuds and similar technology are prohibited. Students can use wired headphones for educational purposes in class with teacher permission.

Technology and Taking Pictures, Videos, and Audio Recording:

- The Junipero Serra Student-Parent Handbook outlines an explicit policy regarding the use of technology in the classroom - including personal electronic devices. Personal electronic devices include but are not limited to cell phones, ipads, ipods and any music and/or recording devices. All electronic devices must be silenced and out of sight unless required by a teacher for an educational purpose. The student's personal electronic device must be used in a manner consistent with the School Acceptable Use Policy.
- Please note: "Students may not use any device to take pictures, videos or audio recordings at any school event unless previous authorization has been granted by the school. Any improper use of technology where a device has been used to take an inappropriate picture of another person or a picture has been taken without consent is considered disruptive and harmful to the Junipero Serra High School community. This includes but is not limited to improper snapshots of people, places, phone/computer contents, items, tests and other documents. Students who film, photograph or record anything without expressed consent from a teacher or administrator will be subject to immediate suspension and/or expulsion." (p.54 of the Student-Parent Handbook).
- All electronic, communication or recording devices are not allowed in your possession during tests. If a student is found to have a prohibited device in his possession during a test, he will receive an extra 3 hours of detention on top of an honor code violation and its associated penalties (p.23 of Student-Parent Handbook). If devices are stored in a designated area during class time, students are responsible for retrieving their own devices from the teacher. Likewise, the teacher is not responsible for any damage that might occur to the phones while they are being stored.
- Students are not permitted to leave the classroom with their phones during class time. The teacher will set up a location for storing phones while students are out of the classroom.
- As stated in the Student-Parent Handbook, "For the safety and good order of the school wireless headphones, earbuds and similar technology will only be allowed during class and/or independent study periods when permission is granted by a teacher or staff member." (p.52 of Student-Parent Handbook).

Special note for classes that would include seniors (spring semester)

- Seniors who have earned 90.00% or a higher grade in their Spring Semester class are exempt from taking the Spring Semester final exam for this class. Students' grades at 3:00pm on May 19 will be used to determine whether or not the student qualifies for the final exam exemption. The cutoff date for any work to be submitted to the teacher is May 15. Any work submitted after that day will be graded at the discretion of the teacher to determine if the student qualifies for the exemption. Please note that Tri-School classes and Visual and Performing Arts classes are exempt from this policy.

Honor Code: Cheating will be dealt with according to the Serra Academic Honesty Policy. Examples of cheating include giving or receiving help on a test, plagiarism, or copying homework. Academic Honor Code p.22-24 of Student-Parent Handbook

Email Etiquette:

Students frequently need to communicate with teachers via email. The following policies must be followed, as they will improve the quality and clarity of communication.

1. Address teachers correctly
2. Use professional language. Do not use slang
3. Check emails for spelling and punctuation
4. Respond to emails from teachers within 24 hours

Department AI Policy:

To be fair to everyone, teachers need to check and grade your work based on the rules of our Honor Code. According to our Honor Code, you can't work together without permission or use someone else's work as your own. Using ChatGPT or other AI is like working with a partner or copying someone else's work. Doing so will be considered a violation of the honor code.

Just like when you are allowed to work in a group on assignments, teachers may give you permission to use generative AI on assignments. Each assignment will have a clear statement describing the use of this type of software.

***** If you do not see a written statement on the assignment giving you permission, you may not use AI software on any assignments for any reason. *****

With the permission of your teacher, the following uses of generative AI are considered acceptable:

- Using AI programs search engines
- Asking AI programs for clarification or explanations when you need help
- Generating ideas, topics, and writing prompts
- Refining the grammar and punctuation of your written work

Even when you are given permission to use AI, the following uses are **NEVER** acceptable:

- Copying text or images from AI programs without proper citation or acknowledgement
- Using AI text or images without fact-checking or checking for plagiarism of sources
- Using AI programs to avoid doing your own work

NOTE: This policy may be updated throughout the year as use and technology change.

Things to remember:

AI programs can have bias and present incorrect information. Anytime you use an AI program, you should be thinking critically and fact-check using primary sources. You are responsible for all the information you turn in for your assignment. Be sure it is correct and not plagiarized.

Be transparent - if you are given permission and do use AI, be sure to cite or acknowledge AI text and images properly when you use them.

If you do not have a clear statement from your teacher, the use of a generative AI like ChatGPT is considered a violation of the honor code. These violations will be treated as any other honor code violation with the same consequences as described in the handbook.

What you can expect from me

You can expect me to do the following:

1. Have a positive attitude.
2. Help you achieve to the best of your ability.
3. Be fair, consistent and respectful.
4. Return assignments swiftly with constructive feedback.
5. Respond to email correspondence within 48 hours.

What I expect of you

I expect you to do the following:

1. Come to class with a positive attitude.
2. Be respectful of your classmates, yourselves and me.
3. Engage and work hard to achieve to the best of your ability.

Serious breaches of conduct

Serious breaches of conduct or honor code violations will not be tolerated. If they occur the student will be referred to the Dean of Students. Incidents that exhibit any of the following traits will result in dismissal.

1. Distributing material demeaning of any group or individual.
2. Behavior designed to humiliate, intimidate or ridicule any person(s)
3. Racial discrimination defined as prejudice, hostility, or expressed negative feelings about an individual or group. This is forbidden in any communication format (email, social media, and verbally)
4. Sexual harassment defined as behavior characterized by the making of unwelcome and inappropriate sexual remarks or physical advances in a workplace or other professional or social situation, or online social media platform.
5. Any Academic Honor Code violation.
6. Unlawful acts including, but not limited to, being in possession of, or being under the influence of, drugs or alcohol; possessing and/or using smoking and/or vaping products; defacing school or surrounding properties; being in possession of weapons of any kind (California Penal Codes: 626.10 and 308).
7. Any action that discredits the school. Any wilful damage to school property, or personal property of other students and/or school employees.

Please refer to the appendix for the Harassment Policy of The Archdiocese of San Francisco

Appendix

Academic Honor code

The Junípero Serra High School Academic Honor Code embodies the standards of honesty for all Padres. It declares that compliance with those standards is expected, just as a student's signature declares his understanding of and agreement to follow this honor code. We expect the standards to be followed, and we expect students, faculty members, and administrators to encourage compliance and to take reasonable steps to discourage violations of the Academic Honor Code. Students will cooperate fully with teachers and administrators who investigate possible violations of the Honor Code. In areas of ambiguity or issues not specifically covered below, the teacher and the Dean of Studies will jointly determine if there has been a violation of the Honor Code.

When a student is in doubt, he should consult with his teacher about what is allowed and what is not.

Violations of the Academic Honor Code

Students will not:

Cheat:

Cheating: to trick, to practice fraud, or to violate rules dishonestly. Examples of cheating include, but are not limited to:

1. Copying, "borrowing, " or using another student's work or answers
2. Lending work or answers to a student so the student can copy or "borrow"
3. Collaborating or "working together" on an assignment when the assignment is meant to be done individually
4. Taking or using another student's answers from a test, quiz, or homework assignment
5. Violating the testing rules set by the teacher
6. Taking a photo of a test or quiz or test or quiz answers
7. Communicating the content of a test or quiz to another student who has yet to take the test or quiz
8. Electronically sending or receiving answers or test/quiz information
9. Using an online translator in a World Language class when it is not allowed by the teacher
10. Using a calculator or any other technology on a test or quiz when it is not allowed by the teacher
11. Using or being in possession of "cheat sheets"

Harassment policy of The Archdiocese of San Francisco

The Archdiocese of San Francisco affirms the Christian dignity of every student. Harassment is unacceptable verbal, written, physical, or visual conduct that is severe and pervasive. Harassment occurs when an individual is subjected to treatment in an environment that is hostile, offensive, or intimidating because of the individual's race, creed, color, national origin, physical ability, sexual orientation, or gender. The harassment of any student by another student is prohibited and will not be tolerated. It is the policy of the Archdiocese to provide a safe and comfortable environment in which all students are treated with respect and dignity. The complete text of the Archdiocesan policy on harassment is contained in the Junipero Serra High School Student-Parent Handbook.

Classroom conduct for online classes

In the online Zoom learning environment, students will follow the direction of the teacher at all times. Students must also adhere to the following 15 protocols.

1. Students must dress appropriately for Zoom. Students must wear clothing that would be appropriate for attending school in person.
2. Students, during lessons, must have their Zoom cameras on at all times (all Zoom conferences are recorded by the teacher).
3. Students must not have inappropriate backgrounds in their Zoom calls. It is advised that students should set up their Zoom in front of a plain wall to avoid issues. Zoom backgrounds must be professional.
4. Students are required to be out of bed and sitting at a table.
5. Students cannot leave class for any reason unless they receive teacher approval.
6. Students should be prepared for class with the proper books and materials.
7. Students are to be attentive to their teachers and do all assigned work.
8. Students should not call out, make noises, or distract others in any way. Talking when the teacher is talking is not acceptable.
9. Students must adhere to all work deadlines.
10. Students must adhere to the Academic Honor Code (refer to appendix).
11. Students must only use their devices as directed by the teacher.
12. Students must raise their hand or use the raise hand tool to answer and ask questions.
13. Students must show the appropriate level of respect to their teachers and peers.
14. Check Google Classroom at least twice a day and respond to email within 24 hours.
15. Students must adhere to the specific policies of their class teacher.

Students who fail to adhere to these policies will be referred to the Dean of Students.