Advanced Placement Biology

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COURSE DESCRIPTION: Biology is the study of living things and their life processes. Advanced Placement is a college level course which includes an exam in May covering the full year of course work. The four big ideas, as shown below, are stressed throughout the course.
1. The process of evolution drives the diversity and unity of life.
2. Biological systems utilize free energy and molecular building blocks to grow, to reproduce and to maintain dynamic homeostasis
3. Living systems store, retrieve, transmit and respond to information essential to life processes.
4. Biological systems interact, and these systems and their interactions possess complex properties.

PREREQUISITES:
Minimum of one year of advanced biology with a grade of C or better highly recommended.
Minimum of one year of chemistry with a grade of C or better highly recommended.

COURSE OBJECTIVES:
1. Understand the science practices used in biology and other sciences.
2. Identify and relate the Big Ideas in biology through enduring understandings..
3. Practice finding and using patterns in collected data to solve scientific problems
4. Apply biological theory and research findings to explain and discuss everyday phenomena and ethical questions.
5. Apply biological knowledge and critical thinking to environmental and social concerns
6. Develop an ability to design laboratory investigations that incorporate the Big Ideas and science practices important to understanding biology.
7. To prepare for the AP Exam

METHOD OF INSTRUCTION:
Lecture: Examination material will be taken from topics covered in lecture and from your textbook chapters.
A calendar of pacing, lectures, assignments, and exam dates will be available prior to the beginning of the unit on the instructor's web page. Audiovisual materials and guest speakers will be presented to emphasize certain subject matter.
Visit Ms. Brammer's web page: http://shaunab.info
Some of the required outside work for this class requires the use of a computer and the internet. If you do not have access to this equipment at home you will need to make arrangements to do some of your work in the media center or public library.

Laboratories: These are designed to supplement the lecture. Each unit will have one or more corresponding lab activities. It is impossible to make up some laboratory activities.

REQUIREMENTS:
All students will keep a notebook for class activities and discussion sessions.
All students are responsible for the assigned reading and homework questions.
All students must participate in laboratory experiments and write them up in the appropriate format.

Student Support Plan: If you have any questions please feel free to email me, or stop by room 910. I am available for students before school, and at lunch.

A. Before instruction:
* Unit calendar to include:
1. unit objectives, 2. homework assignments, 3. laboratory activities, 4. quizzes, and 5. exam schedule.
* Students have access to classroom facility before school to work on homework individually, or in groups
* Ongoing instructor assessment and revision of all curricula (most materials are on the instructor's web page)
* Homework packets are aligned with the lectures, and textbook. See online support materials, ***Mastering Biology***

B. During instruction:
* Assessment of student understanding through:
1. regular chapter quizzes based on daily activities such as homework assignments, assigned text reading, lab activities, and lecture notes
2. index card review (individual student response)
3. special strategies for note taking, and 4. pre-lab assessment (teacher approval)
* Use of technology for student presentations, data analysis, and lectures
* Peer group activities and peer assessment
* Instructor models organizational skills that students incorporate into their daily classroom activities

C. After assessments:
* Regular parent contacts to encourage academic performance, punctuality, and attendance
* All assignments will be graded and returned within a 24-48 hour period (some exceptions may apply)
* Grades are posted in a timely fashion for student and parent information
* Students will be recognized, and rewarded for academic performance

Text: *Campbell, BIOLOGY 10th edition* **Online Publisher Resources: pearsonmylabandmastering.com**

STUDENT RESPONSIBILITIES:
* Students are expected to attend class daily.
* Assigned work is due on the designated day given. Late **labs** will be accepted **one day late for 90% credit**.
If you are absent, it is YOUR responsibility to check the assignment calendar. *Mastering Biology* assignments are due by the assigned day or earlier. NO LATE HOMEWORK is accepted – no exceptions!
If you are on campus you are obligated to turn in any assignment due for that day. (See chapter calendars).
* **Tests not taken on the assigned day must be made up in class following your return.**
If you are on campus you are obligated to take the quiz/test or a zero will result.
* **At no time is any electronic communication device such as phones, iPods, iWatches (ECD), allowed to be in use during class time resulting in a lowered citizenship grade, (if a violation occurs during a quiz or exams, a zero will result– no exceptions!).**
Note: Any person, including a pupil using an electronic listening or recording device in any classroom without prior consent of the teacher, and parents of classroom students is prohibited. *Ed. Code: 51512*

* Lab reports/activities and/or homework are due at the beginning of the period unless noted otherwise. If you are absent on a lab day **you must make it up the day of your return before school, or at lunch only if absence is excused or a zero will result. If you are on campus you are obligated to turn in the assignment or a zero will result. There is no penalty for turning in assignments and taking tests early.**
Note: if you are going to be absent due to a school sponsored event you have prior permission from the teacher to participate. You MUST take the test early, and turn the assignment in before you leave campus, or it will not be accepted for credit! (SDUSD Procedure #4585).
* Students **may not be able to complete** all missed assignments (e.g., "class participation" assignments can not be made up such as some pre-lab discussions, laboratory assignments, and simulations, etc.)
* Class Participation is an integral part of students' learning experiences, one of the course objectives is students must attend class to ***participate***. This is not a correspondence course. **LESSON(S) WILL NOT BE RETAUGHT DUE TO STUDENT ABSENCE(S) OR TARDINESS.** See my web page for curriculum.

Code of Conduct: Students are subject to charges of misconduct concerning, but not limited to, the **LJHS Student Handbook.**

Grading Policy: Quizzes, labs, and homework are graded on a point system. A student's total points are divided by the total points possible in the course and converted to a percentage. See current class grades on PowerSchool. You can link via **Ms. Brammer's web page at:** **http://shaunab.info**

GRADING SCALE			
A	**86 - 100%**	**Homework /Class Work**	**17%**
B	**80 - 85%**	**Labs and Laboratory Write-ups**	**30%**
C	**70 - 79%**	**Tests and Quizzes**	**43%**
D	**55 - 69%**	**Final Exam**	**10%**
F	**< 54%**		

Tardiness/Late Excused (L): Be in your seat with the required materials when the bell rings. Excessive tardiness will lower your citizenship and can eventually your academic grade! **This applies for the entire semester.**

1st – 3rd tardy	→	conference with student - no penalty
4th – 6th tardy	→	parent and counselor contact; lowered citizenship
7th tardy or more	→	U in citizenship and referral to Vice Principal

***NOTE: Late Excused (L) will affect your citizenship grade.**
Unexcused Absences/Unverified Absences/Truancies/Late Excused: Any truancy will result in a **zero for the work/exams** assigned for that particular day(s), **and** an automatic **"U" in citizenship**.
***Seniors: DO NOT HAVE UNEXCUSED ABSENCES(U), TRUANCIES(Z), TARDINESS(T), or LATE EXCUSED(L) that can jeopardize senior graduation activities.**

Attendance: Class attendance is critical. The course moves quickly and students can fall behind within a day of being absent. **It is difficult to make up missed class or many of the labs**. It is, therefore, essential you attend every class and lab and be prepared to participate. Absences can *negatively* impact your semester grade. Students **may not be able to complete** all missed assignments (e.g., "class participation", pre-lab discussions, laboratory assignments, post-lab discussions, simulations, and group activities, etc.)

I am UNABLE to sign CIS Contracts (*Independent Study Contracts*); SDUSD Procedure # 4316.
"Excessive absences" (no matter the reason) in a semester can result in a "NC" (no credit);
SDUSD Administrative Procedure # 4705.

20807(a). 06/16 *Teacher's course requirements, procedures, and practices are not limited to everything included above.*

Tentative Schedule: see instructor's webpage for topic calendars

WEEK	CHAPTERS	TOPIC
1	1-2	Introduction and Background/ Molecular Diversity
2	3	Water Chemistry/Properties of Water Lab
3	4-5	Macromolecules/ Peanut Lab/ Biological Molecules Lab
4	6	**Unit test #1:** The Cell/ Cell Parts Lab & Presentations
5	7	Cell Membrane Structure & Function/ Osmosis & Diffusion Lab
6	8	**Unit test #2:** Metabolism/ Potato Enzyme Lab
7	9	Cellular Respiration/ Cellular Respiration Lab
8	10	Photosynthesis/ Plant Pigments & Chromatography Lab
9	11-12	**Unit test #3:** The Cell Cycle & Mitosis/Cancer and Abnormal Cell Division
10	13	Meiosis & Sexual Life Cycle/ Mitosis & Meiosis on The Table Lab & Onion Root Tips
11	14-15	**Unit test #4:** Mendel and The Gene/ Pedigree Analysis Lab/ Who's Yo' Daddy Lab
12		**Thanksgiving Break Assignments (ch. 16-17)**
13-14	15-16	DNA: The Molecular Basis of Inheritance/ DNA Model Buiding Lab/ Pipe Cleaner Babies Lab
15	17	**Unit test #5:** Chromosomal Inheritance/ Gene to Proteins
16 - 17		**Winter Break Assignments (ch. 18-21)**

WEEK	CHAPTERS	TOPIC
18-19	18-21	**Unit test #6:** Molecular Biology/ Paper Plasmid Lab
20	25, 22	Origins of Life on Earth/ Evolution of Populations
21	**(End of Semester I)**	**Midterm Exam (to include ch. 18 and 21 unit #7 test)**
22	23-24	The Origin of Species/ The Fossil Record Lab
23	26	**Unit #8 test: *Evolution Game Show Test* (chaps. 22, 23, 24 and 25)**/ Ch. 26: Phylogeny and The Tree of Life/ Anaylizing Cladograms Lab
24	27, 28, 31	Bacteria, Protists, and Fungi/ Biodiversity Of Pond Water Lab
25	29-30	**Unit #9 test:** Plant Diversity/ Intro. To Land Plants Lab (Bike Path Walk)
26	35-36	Plant Structure and Function/ Plant Cell Tissues Lab/ Transpiration Lab
27	38-39	Angiosperm Reproduction and Plant Response to Stimuli/ Flower Dissection Lab
28-29	40-42	**Unit #10 test:** Animal Form and Function/ Digestion and Circulation/ Daphnia Heart Rate Lab
30-31	43-46, 48-50	**Unit #11a test(chaps. 40-42):** Immune System/ Osmoregulation/ Endocrine System/ Animal Reproduction/ Nervous System
		Spring Break Assignments (Ch. 43-50)
32	48-50	**Unit #11b test(chaps. 43-46, and 48-50):** Animal Reproduction/ Nervous System
33	51	Animal Behavior/ Cricket Behavior Lab
34-35	52-54	Ecology: Populations and Communities/ Population Dynamics Game
36		**Unit test #12:**
37		**AP Test**
38-End		Field Studies- Local Coastal Sage Scrub Studies Part I – *the Spring* Human Evolution/ Primate and Human Evolution – A Skull Comparison Study
(End of Semester II)		**Final Exam (all chapters covered the entire school year)**

Academic Honesty

Please read your student handbook regarding the Academic Honesty-Integrity Policy for La Jolla High School. These school wide policies will be strictly upheld in the classroom.

What is Academic Integrity?

Academic integrity is a positive ideal, not a list of "don'ts":

Students and faculty seeking knowledge honestly, fairly, with mutual respect and trust, and accepting responsibility for their actions and the consequences of those actions.

Center for Academic Integrity "Fundamental Values of Academic Integrity Project" http://www.academicintegrity.org/fundamental.asp

Academic Integrity Standards: Examples of Academic Dishonesty

-Copying or sharing answers during exams
-Plagiarism (deliberate)
-Altering & resubmitting graded work for credit
-Stealing others' work
-Providing false information or excuses
-Falsifying data

Academic Integrity Standards: Examples of Academic Misconduct

-Talking or "wandering eyes" during exams
-Having notes or other unauthorized materials visible during exam
-Failing to quote or cite sources properly
-Unauthorized collaboration
-Other behavior that undermines learning and teaching (e.g., leaving exam without permission, working after time is called)

These acts of academic misconduct impair educational goals, violate course rules, and/or disrupt class.

Plagiarism is defined as:

"Using another's work without giving credit. You must put others' words in quotation marks and cite your source, and must give citations when using others' ideas, even if paraphrased in your own words."

--SJA "Avoiding Plagiarism: Mastering the Art of Scholarship"

Unauthorized Collaboration defined:

"Working with others without the specific permission of the instructor on assignments that will be submitted for a grade. This rule applies to in-class or take-home tests, papers, labs, or homework assignments. Students may not collaborate without faculty authorization."

-SJA "Unauthorized Collaboration: What Students Need to Know"

AP Biology Honor Code

I pledge to adhere to the common agreements of this class:

-All work turned in will be my own. It will not be copied or modified from another source unless authorized and then it will be cited properly.
-When working cooperatively to complete a lab or project I will contribute equally to my group. I agree to always produce my own work in my own words.
-I will be present on testing days if at all possible.
-I will not discuss the contents of any test or quiz with classmates that have not taken it. Nor will I ask what is on a test or quiz if I have not taken it.
-This agreement is made out of respect to fellow students, my teacher, and myself.

I agree to follow La Jolla High School Academic Honesty-Integrity Policy and the AP Biology Code. I understand that if I fail to do so appropriate actions will occur. Typically a zero on the entire assignment for all students involved, a referral, and a U in citizenship. The second offense may also include removal from the class with an academic grade of an F and a U in citizenship for the semester.

✂--Please cut here, retain the above for your records, and return the completed portion below to your teacher the first week of school.

Students Name Printed _____

Students Signature _____ Date _____

Parents Signature _____ Date _____