

PIPER HIGH SCHOOL



Instructor's Name: **Anthony Arico**

Course Title: Advanced Placement Biology

Course Location: Piper High School, room B151

Contact Information: *Feel free to contact me for any reason.*
Phone: 754-322-1700 ext. 582-3056
Email: Anthony.arico@browardschools.com

Availability: Best **method** to reach me is **email**, I check it regularly.
Please include the student's name on the subject line.

Best **time** to reach me by phone is:
Weekdays from 9:30am-10:50pm (2nd/6th period).

Course Materials: The Unity and Diversity of life, Twelfth Edition
Cecie Starr, Ralph Taggart, Christine Evers, Lisa Starr
Web site: www.browardschools.instruture.com/courses/51658
One 3 ring binder
Two spiral note books or Two composition books.
Blue or black ink pens (color optional).
#2 Pencils for assessments & labs.

Internet access is a critical element of this course. If you do not have access at home, please make arrangements to use the computers in our library or in your local library.

Electronic Resources: Pinnacle Grade book
*It is recommended that you (student and parent) check Pinnacle **regularly** for attendance and grades.*

Objectives: AP Biology is a course that aims to provide students with the conceptual framework, factual knowledge, and analytical skills necessary to deal critically with the rapidly changing science of biology. This course is designed to prepare students for the Biology College Board Advanced Placement Exam.

Attendance: Because of the nature of the course, there is class work-such as labs-which is difficult to make-up. Missed assignments may be replaced with alternate assignments, at the discretion of the teacher. If you must be absent, please be sure to get your absences excused within the 48 hour timeframe required by **School Board Policy**. Late work will lose letter grades. It is recommended that you record names and phone numbers of at least two other class members and check white board for assignments.

EVALUATION/ASSESSMENT:

There will be a major test after each UNIT. Quizzes may or may not be announced. Pop quizzes will not be available for make-up- the next quiz will be counted twice. Your final grade will be determined by your performance on major tests, quizzes, class and homework assignments, lab work, group work, and class participation.

Assignments will be due at the beginning of the period on the due date: **late work will be penalized one letter grade/day**. It is to your advantage to complete all assignments- failure to do so in a timely fashion will negatively impact your grade.

GRADING:

1. Test date will be announced in class about one week before the test. Tests will be made up either before or after school.
2. Announced and unannounced quizzes may be given on an irregular basis.
3. There are 8 required laboratory assignments for this course. Lab write-ups and the lab quiz will be a part of your grade.

Grades will be based on a point system. According to School Board Policy the grading scale is as follows:

A=90-100%	B+=87-89%	B=80-86%
D+=67-69%	D=60-66%	below 59%=F

4 Points for tests will range between about 50-100, quizzes 10-20, labs 50-200, class work and homework 20-60 points.

CHEATING POLICY

Cheating is obtaining information from any sources other than those approved by the teacher for the specific assignment.

For example: Having a cheat sheet, copying from someone else's paper during a test or homework assignment, talking during a test, **using cell phone during a test**, etc. Students caught cheating will have their parents notified of their involvement. A grade of **ZERO** will be given for the assignment and the student will NOT be allowed to make up the work. Consequences: Automatic zero on the assignment or test, parent notification, referral to Guidance, creating an official record of the incident. Repeat offenders will be given an administrative referral. **ANY STUDENT GIVING INFORMATION IS TO BE CONSIDERED EQUALLY AS GUILTY OF CHEATING AS THE STUDENT RECEIVING INFORMATION.**

Students: I am here early in the morning. If you have any questions regarding your work or need something, please feel free to see me. Be sure to make wise choices as poor choices may result in undesirable consequences. It is you and only you that will earn your grade. You can make any grade you choose, provided you work for it and earn it honestly.

Parent/Guardian: Please Check Pinnacle- it is your best indicator of your child progress. This is very important. Please, this is a college level course and a challenging experience. Encourage your student to keep pace with required readings, lab work and make sure he/she is in attendance every day. If you have any questions feel free to call during my planning, period 2nd/6th.

Topic Outline For The Year

The AP Biology Curriculum is framed around four Big Ideas. For each of these Big Ideas, there is a set of core concepts called Enduring Understanding which will be used to guide the AP Biology course curriculum. Below is an outline of the AP Biology Curriculum Big Ideas and the Enduring Understandings topics covered in this course. **AP Biology is a rigorous course which demands personal responsibility from the student.** In order for students to plan effectively, they are provided with due dates for all major projects, labs and tests. They are strongly encouraged to complete nightly readings and study each day's lecture notes on their own time.

Big Ideas	Enduring Understanding
One: The process of evolution drives the diversity and unity of life.	<ul style="list-style-type: none"> A. Change in the genetic makeup of a population over time is evolution. B. Organisms are linked by lines of descent from common ancestry. C. Life continues to evolve within a changing environment. D. The origin of living systems is explained by natural processes.
Two: Biological systems utilize energy and molecular building blocks to grow, reproduce, and maintain homeostasis.	<ul style="list-style-type: none"> A. Growth, reproduction, and maintenance of the organization of living systems require free energy and matter. B. Growth, reproduction, and dynamic homeostasis require that cells create and maintain internal environments that are different from their external environments. C. Organisms use feedback mechanisms to regulate growth and reproduction, and to maintain dynamic homeostasis. D. Growth and dynamic homeostasis of a biological system are influenced by changes in the system's environment. E. Many biological processes involved in growth, reproduction, and dynamic homeostasis include temporal regulation and coordination.
Three: Living systems retrieve, transmit, and respond to information essential to life processes.	<ul style="list-style-type: none"> A. Heritable information provides for continuity of life. B. Expression of genetic information involves cellular and molecular mechanisms. C. The processing of genetic information is imperfect and is a source of genetic variation. D. Cells communicate by generating, transmitting, and receiving chemical signals. E. Transmission of information results in changes within and between biological systems.
Four: Biological systems interact and these interactions possess complex properties.	<ul style="list-style-type: none"> A. Interactions within biological systems lead to complex properties. B. Competition and cooperation are important aspects of biological systems. C. Naturally occurring diversity among and between components within biological systems affects interactions with the environment.

Put this syllabus in your notebook for future reference.

Lab Component

The laboratory experience is extremely important in the AP Biology course and is used to emphasize that biology and science is a process, which involves development and testing of a hypothesis, collection, analysis, and presentation of data, and a clear discussion of results. To ensure the lab component of the course is met, on average, one day out of every four is devoted to laboratory work. Students are required to come in to the laboratory prepared and ready to complete the day's procedure. Lab reports are then completed at home.

During the course, students will complete the recommended laboratories in the *AP Biology Investigative Labs: An Inquiry-Based Approach*. The topics covered in these labs are:

Investigation 1	Artificial Selection
Investigation 2:	Mathematical Modeling; Hardy-Weinberg
Investigation 3:	Comparing DNA Sequences to Understand Evolutionary Relationship with BLAST
Investigation 4:	Diffusion and Osmosis
Investigation 5:	Photosynthesis
Investigation 6:	Cellular Respiration
Investigation 7:	Cell Division: Mitosis and Meiosis
Investigation 8:	Biotechnology: Bacterial Transformation
Investigation 9:	Biotechnology: Restriction Enzyme Analysis
Investigation 10:	Energy Dynamics
Investigation 11:	Transpiration
Investigation 12:	Fruit Fly Behavior
Investigation 13:	Enzyme Activity

The course also includes additional labs which have been chosen to emphasize topics covered in the course that are not addressed in the recommended AP Biology Laboratories. And, once during each semester students are asked to design an experiment which they will implement at home.

AP Biology Contract

AP Biology presents a fantastic opportunity to vastly expand your knowledge of the biological sciences, to hone your laboratory techniques and writing, and to develop skills, habits, and knowledge that will prepare you for success at the University level and beyond. The following is a contract that defines your responsibilities pertaining to this course. Violation of this contract, as measured by poor performance within the first semester, will result in your participation in a conference to determine your future within this course.

I, _____ (print name), understand that AP Biology is an elective class taught at an accelerated pace and advanced level of instruction. The class requires me to study outside of the classroom an average of $\frac{1}{2}$ to one hour per day. I will be responsible for reading the corresponding chapters from our textbook outside of class. There will be frequent quizzes over material to assure that I am being responsible and keeping up with the pace. I will need to complete projects outside of classroom time and do homework assignments that I will not have time in class to do. I realize that there will be homework over holiday breaks and will complete those to the best of my ability. I will be self-motivated and self-disciplined in order to excel in this course. I realize that attendance in class is essential to succeeding in this class and I will make every effort to BE IN CLASS EVERY DAY!

No curriculum modifications will be made to slow the pace or limit the level of instruction. My activities will not hinder my performance in this class and absences due to my activities will not give me an excuse to fall behind and/or need extra time to complete assignments. I plan to prepare for the AP Exam throughout the year, and to consider my classmates to be teammates collaboratively working towards a common goal.

I agree to this accelerated class, am looking for an academic challenge at the highest level, and have an understanding of the above-listed requirements of this course.

Name (student): _____

Date: _____

Name (parent/guardian): _____

Date: _____

Refer to this syllabus throughout the year. Syllabus is subject to change.
The following pages must be signed by BOTH students and parents, and returned to the SCIENCE teacher by the first week of school.

Student Name

Student ID #

Period

This page must be returned to your **SCIENCE** teacher by the first week of school.
Go to <http://piper.browardschools.com> for the complete syllabus.

Science Syllabus Confirmation Page

I _____ (*CLEARLY print **student name***) have read through and discussed this course syllabus with my teacher today in class. I understand what exactly is expected of me in this class and what my responsibilities are for this semester. I know and understand what the academic policies and procedures that I am to follow are. I am aware of and understand how I am going to be evaluated and assessed in this course and how my final grade will be calculated. I am aware of and understand that tardiness is not tolerated and can negatively affect my class grade. I know that if I need extra help or have concerns I should speak with my teacher as soon as possible. *I have reviewed any additional resources given to me by my teacher.

Student Signature: _____

Date: _____

Parent Signature: _____

Date: _____

How can we contact you? Please write below:

Student Email Address: _____ @ _____

Parent Email Address: _____ @ _____

Parent Phone Number: _____

Safety in Science Student Laboratory Contract

I have been instructed in the necessary safety procedures required in this course. I agree to abide by the following guidelines:

1. Safety apparel will be worn when specified by the instructor.

2. Long or loose hair will be tied back. Excessively loose clothing or jewelry will not be worn.
3. All safety rules and regulations will be followed.
4. There will be no drinking or eating in the laboratory.
5. Experiments will be done in the specified order with the prescribed quantities of chemicals.
6. Only the chemicals specified by the teacher will be used. No unauthorized experimentation will be done.
7. The proper use of safety equipment and correct evacuation procedures will be followed.
8. Wash hands thoroughly before beginning and after completing an experiment.
9. Contact lenses will not be worn during specified experiments.
10. Horseplay or other inappropriate behavior will not be tolerated during laboratory experiments.
11. Never taste chemicals or smell them directly.
12. Never pick up broken glass with bare hands.
13. Report all accidents, no matter how minor, to the teacher.
14. Never work without teacher supervision in the lab.
15. Do not remove any chemicals or equipment from the lab without the teacher's permission.

Failure to follow these guidelines may result in reduction in grade, disciplinary action, and/or exclusion from laboratory activities.

Student Name

Student Signature

Date

Parent Name

Parent Signature

Date

Emergency Contact Information:

Does student have any allergies? Yes No

If yes, please list: _____

	Mother/Guardian	Father/Guardian
Name:		
Home/Cell Number:		
Alt. Number:		
Email:		