Course Description: (taken from the College Board's AP Biology website)

AP Biology is an introductory college-level biology course. Students cultivate their understanding of biology through inquiry based investigations as they explore the following topics: evolution, cellular processes, energy and communication, genetics, information transfer, ecology, and interactions. This course requires that 25% of the instructional time will be spent in hands-on laboratory work, with an emphasis on inquiry based investigations that provide students the opportunities to apply the science practices.

Big Ideas

The big ideas serve as the foundation of the course and allow students to create meaningful connections among course concepts. The big ideas are listed below:

1. Evolution – **The process of evolution drives the diversity and unity of life**
2. Energetics – **Biological systems use energy and molecular building blocks to grow, reproduce, and maintain dynamic homeostasis**
3. Information Storage and Transmission – **Living systems store, retrieve, transmit, and respond to information essential to life processes**
4. Systems Interactions – **Biological systems interact, and these systems and their interactions exhibit complex properties**

Course Materials & Supplies:

- Textbook: *Biology,* by Neil A. Campbell and Jane Reece AP Edition, 8th Edition, 2011, Pearson
- One 2-inch 3-ring binder for notes, classwork, and homework
- One 1/2 inch 3 ring binder OR three prong folder for labs
- Lined paper, writing utensils

The following supplies are not required but would greatly benefit the class if you were to bring them in ☺:

- Clorox/Lysol Sanitizing Wipes
- Hand Sanitizer
- Tissues
- Paper Towels

Topic Outline: (also taken from the College Board's Biology Website. Topics will not necessarily be covered in this order, but the percentages reflect the weighting of topics on the AP Bio exam.)

I. Chemistry of Life (8-11%)
II. Cell Structure and Function (10-13%)
III. Cellular Energetics (12-16%)
IV. Cell Communication and Cell Cycle (10-15%)
V. Heredity (8-11%)
VI. Gene Expression and Regulation (12-16%)
VII. Natural Selection (13-20%)
VIII. Ecology (10-15%)

Grading

Your grade will be calculated using weighted percent categories as follows:

Category	Percentages
Summative Assessments (Unit Tests)	75%
Formative Assessments (Quizzes, Labs, In Class Activities, & Projects)	25%

These percentages are subject to change by marking period as determined by the Science Department. You will be notified of any changes to the grading weighted percent categories.

Late Work Policy: **Assignments can be turned in at any point up until the unit test**. However, assignments that are turned in after the scheduled due date will be subject to 50% reduction. No late work will be accepted after the end of each quarter.

Remediation Policy: **Students will be given three different remediation opportunities per quarter in order to improve their overall summative average. These opportunities are outlined below:**

- Writing Conferences – Students are allotted one opportunity per quarter to sign up for a writing conference. During the writing conference, missed concepts and skills will be discussed. Students will have the opportunity to add 10% points back to their overall exam score.
- Quarter Cumulative Final (QCF) – At the end of the quarter, students will be provided a cumulative exam that covers all information for the year up until that point. Students have the ability to score up to a 100% on the QCF. For students who score higher on the QCF than their summative average, all summative scores will be replaced with their QCF score.

Laboratory work:

An average of one class period per week will be devoted to hands-on laboratory work. Some laboratory activities may span several days. Labs encourage you to think critically, observe environmental systems, design and conduct controlled experiments, utilize appropriate techniques and instruments, present data graphically, analyze and interpret data using common statistics, form conclusions, and propose further study.

Safety is the most important consideration while participating in all lab activities. All safety rules MUST be followed at all times. Students need to be on task and working quietly with their group. Gum chewing, eating, and drinking are not allowed during laboratory work.

Colleges sometimes require students to present their laboratory materials from AP science courses before granting college credit for laboratory work. Students will be required to keep all of their lab work in a separate binder that will be graded at the end of each semester.

Absences & Make-Up Work: *From the St. Johns County School District Student Code of Conduct 2017-2018*

Excused Absences:

When a student is absent from school with an excused absence, the student shall be responsible for all work and assignments missed during the student's absence. The student shall make arrangements with teachers for "make-up"

work and will complete it within a reasonable time frame (as determined by the school) upon the student's return to schools. Coursework, test, and quizzes can be made up at 100% credit.

Unexcused Absences:

When a student has an unexcused absence, it is the responsibility of the student to complete all coursework, tests, and quizzes and turn them in to the appropriate teacher. A student shall have one day to complete and turn in the work for each day the student is absent (i.e., in the event of a 3 day absence, the student has 3 days to complete and turn in the assignments) and may only earn 50% credit. Tests and quizzes can be made up at 100% credit. There is no expectation that the student's teacher or teachers will recreate lessons, lectures, or labs for an unexcused absence.

Unexcused absence without parental knowledge/consent, or absence from class without a written excuse from a teacher/administrator will result in NO CREDIT for coursework, tests, and quizzes missed during the absence.

If a student is absent the day of a test, they will be expected to take it the day they return. If a student is absent the day before a test, the student will still be required to take the test the day they return to class, provided that no new material was taught the day there were absent.

Schoology:

All class PowerPoints, guided notes, assignments, study guides, test reviews, and important documents will be on our class Schoology page. I will do my best to keep a course calendar on Schoology. There is a calendar in the class where all important dates will be displayed. I encourage you to set calendar reminders in your phone and write down the dates in your school provided planner. You will receive an access code to join the class on Schoology. **Each student will be required to join the class Schoology page.**

https://stjohnsschools.schoology.com

Schoology Access Code: _____

I have read and will adhere to the class policies and rules described in the syllabus.

_____ _____

Student Signature Date

_____ _____

Parent/Guardian Signature Date

Lab Safety Contract:

I, _____ (student name), have read and agree to follow all of the safety rules set forth in this contract. I realize that I must obey these rules to ensure my own safety, and that of my fellow students and instructors. I will cooperate to the fullest extent with my instructor and fellow students to maintain a safe lab environment. I will also closely follow the oral and written instructions provided by the instructor. I am aware that any violation of this safety contract that results in unsafe conduct in the laboratory or misbehavior on my part may result in being removed from the laboratory, detention, receiving a failing grade, and/or dismissal from the course.

_____ _____

Student Signature Date

Dear Parent or Guardian,

We feel that you should be informed regarding the school's effort to create and maintain a safe science classroom environment. With the cooperation of the instructors, parents, and students, a safety instruction program can eliminate, prevent, and correct possible hazards. You should be aware of the safety instructions your child will receive before engaging in any laboratory work. Please read the list of safety rules above. No student will be permitted to perform laboratory activities unless this contract is signed by both the student and parent/guardian and is on file with the teacher. Your signature on this contract indicates that you have read this Student Safety Contract, are aware of the measures taken to ensure the safety of your child in the science laboratory, and will instruct your child to uphold their agreement to follow these rules and procedures in the laboratory.

_____ _____

Parent/Guardian Signature Date