**AP Biology**

Instructor: Ms. Cameron

Email: lcameron@yonkerspublicschools.org Location: Room 116

**Course Description**

The AP Course is equivalent to a two-semester college introductory biology course for biology majors. After the successful completion of the course and a qualifying score on the AP exam, students may receive College credit

In this yearlong study of biology students will gain an understanding of biological concepts through inquiry-based investigation. The following topics will be explained: cellular processes, energy and communication, genetics, information transfer, ecology and interactions

AP biology is historically a challenging and difficult class, but with effort and dedication, students will do well. In addition to the many available resources, I am committed to helping you be successful in this course. Please contact me with any questions, concerns or assistance.

**Virtual Learning**

* It is expected that all students will log into Microsoft TEAMS each day and participate
* Class materials, assignments and homework will be posted on Microsoft teams
* Conferences may be scheduled by me via Microsoft Teams and feel free to request a meeting with me using Microsoft Teams
* My teacher page below has links to your Microsoft Team class
* To access online AP Biology classroom resources and register for your exam, create an account at: <https://myap.colleboard.org/login>
* To join your class section online: <https://apstudents.collegeboerd.org/join-your-class-online>

JOIN code: A4JQJM

School Zip Code: 10704

**Course Content**

AP biology is structured around four big ideas. The enduring understandings within the big ideas and essential knowledge within the enduring understanding

**THE BIG IDEAS**

**BIG IDEA 1:** The process of evolution drives the diversity an unity of life

**BIG IDEA 2:** Biological systems utilize free energy and molecular building blocks to grow, to reproduce and to maintain a dynamic equilibrium

**BIG IDEA 3:** Living systems store, retrieve, transmit and responds to information essential to life processes

**BIG IDEA 4:** Biological systems interact, and these systems and their interaction possess complex properties

**Lab Content**

Students will be given the opportunity to engage in student-directed laboratory investigations throughout the course for a minimum of 25% of instructional time. Students will conduct a minimum of eight inquiry-based investigations (two per big idea throughout the course). Additional labs and activities will be conducted to deepen students’ conceptual understanding and to reinforce the application of science practices within a hands-on, discovery-based environment. Students will be given the opportunity to develop, record and communicate the results of their laboratory investigations.

**Science Practices**

1. **Concept Explanation:**  Explain biological concepts, processes and models presented in written format
2. **Visual Representation:** Analyze visual representative of biological concepts and processes
3. **Questions and Methods:** Determine Scientific questions and methods
4. **Representing and Describing Data:** Reprsent and describe data
5. **Statistical Test:** Perform statistical test and mathematical calculations to analyze and interpret data
6. **Argumentation:** Develop and Justify scientific argument using evidence

**Required Texts**

AP Biology Investigative Labs: An Inquiry Based Approach. College Board, 2012

Mader, Sylvia., Windelspecht, Michael. Biology (12th edition). McGraw Hill, 2016

**Additional Materials**

Laboratory notebook (composition notebook, college ruled)

Recommended: Binder or 3 subject notebook, pen (black or blue) calculator

**Assignments**

Students will be regularly assigned homework, in-class activities, lab exercises and reports, quizzes, and exams (take-home and in-class). Assignments will include physical and virtual handouts, web activities, online quizzes, and both individual and group work. Student expectations are high for this course. You should plan to study 1+ hours outside of class for every hour in class. We will cover 2 chapters per week and will have multiple choice and free response exams on a regular basis.

**Grades**

Class Work and Homework ----30%

Labs (participation, lab notebook with reports) ---- 30%

Assessments, Quizzes, Exams, Projects----- 40%

**Classroom Rules:**

* No phone calls, texting, gaming or unrelated video watching are allowed during class.
* All policies set forth in the Yonkers Public Schools’ Student Handbook must be adhered to.
* Safety is a primary concern, and all students must comply with the Laboratory Safety Contract.

AP Biology will be a challenging and powerful learning experience and I am excited to be a part of this learning community with you. I am committed to help you be as successful as you choose to be, so please do not hesitate to come in to talk to me personally or to contact me via email or cell.

~*Ms. Cameron*