

# Hybrid High School Biology Class 2022-2023

[Click here to register!](#)

**Instructor:** Mrs. Jasmine Chow

Masters degree in Genetics. Worked in biotech research for 5 years before homeschooling.

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**Prerequisite:** Must have taken Algebra 1 and Basic/General Chemistry.

**Target:** High-schoolers (8th graders who are advanced in math may be admitted on a case-by-case basis).

**Class Objective:** The primary objective of this course is to provide students with a fundamental understanding of modern biology and scientific processes. The course will include the following topics: biochemistry, cellular biology, bioenergetics, heredity and molecular genetics, evolution, structure and diversity of organisms, and ecology. Laboratory experiences provide opportunities to experience the concepts studied and to further develop critical thinking skills.

**Schedule:** This is a rigorous, 36-week, interactive hands-on class meets once a week on Mondays at 12:45pm-4:00pm. Because each chapter builds upon previous chapters, attending every class is highly recommended.

**Tuition:** \$1090 and \$1400 (OG) for the entire year.

**Lab:** \$195 materials fee – slides, dissection specimens, dissection tools, and other lab supplies will be supplied for the whole year.

**Deposit:** A \$200 deposit is required to hold your seat for the class.

**Class Size:** Minimum 8 students. Your spot is reserved when the deposit is paid.

**Provide your own microscopes:** Each student needs to provide his/her own microscope. Please don't buy cheap plastic ones. I can recommend past students who may have microscopes to sell. You can also get nice used microscopes for between \$100-\$150 from Craigslist and eBay as well which you can resell later for a good price.

**Resources:** Science Shepherd Biology Textbook 3rd Edition — Author: Hardin, Scott. Ocean Grove students will use a non-sectarian book.

**Class Format:** Students will come to class after having completed reading assignments, study questions, videos, and quiz. During class, they will take turns to answer questions, and discuss the assigned chapter. In most weeks, a lab experiment and lab write-up will follow. Lab experiments will be hands-on whenever possible. Students will take online quizzes and tests.

**Class participation:** The teacher reserves the right to not allow students to participate in class if homework is not completed. Students may be asked to drop the class without any refund if homework is not completed on time more than 4 times per semester without prior permission from the teacher.

**Semester 1 (17 classes - DATES ARE TENTATIVE)**

- 8/15 1. Introduction
- 8/22 2. Chemistry of Life
- 8/29 3. Biochemistry
- 9/5 4. Introduction to Cells and Cell Membrane
- 9/12 5. Cell Interior and Function
- 9/19 6. Metabolism and Enzymes
- 9/26 7. Photosynthesis
- 10/3 8. Cellular Respiration
- 10/10 9. DNA, RNA and Proteins I
- 10/17 10. Cell Reproduction: Mitosis
- 10/24 11. Organism Reproduction
- 10/31 12. Genes and Heredity
- 11/7 13. Inheritance Patterns
- 11/14 14. Genetic Variation
- 11/21 Thanksgiving
- 11/28 15. Human Genetics
- 12/5 16. DNA Technology
- 12/12 17. Introduction to the Creation and Evolution Origins Models

**Semester 2 (19 classes)**

- 1/9 18. Evolution: History and Present State
- 1/16 19. From Fossils to neo-Darwinism
- 1/23 Semester Paper Presentation

- 1/30 20. Biological Classification and Viruses
- 2/6 21. Kingdom Eubacteria and Archaeobacteria
- 2/13 22. Kingdom Protista
- 2/20 Presidents Day
- 2/27 23. Kingdom Fungi
- 3/6 24. Plants: Introduction: Structure and Function
- 3/13 25. Plants: Physiology, Reproduction, and Classification
- 3/20 26. Kingdom Animalia I
- 3/27 27. Kingdom Animalia II
- 4/3 28. Kingdom Animalia III
- 4/10 Easter
- 4/17 29. Kingdom Animalia IV
- 4/24 30. Human Anatomy and Physiology I
- 5/1 31. Human Anatomy and Physiology II
- 5/8 32. Human Anatomy and Physiology III
- 5/15 33. Human Anatomy and Physiology IV
- 5/22 34. Ecology
- 5/29 Review
- 6/5 Spring Semester Final