

Castle Park High School

Home of the Trojans



Course Syllabus Medical Biology 2025-2026

2025-2026 Course Syllabus

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Room: 305

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Course Description:

Castle Park High School is committed to each student's academic achievement and personal growth. This course is a full year lab based class guided by the Living Earth CA Framework that combines the High School Life Science and Earth and Space Science standards. **This course is designed for those students interested in medicine and the healthcare field. Students will learn about traditional biology & Earth Science concepts while making vital connections to biotechnology, healthcare careers and the biomedical world around them.** The California Science Framework emphasizes three dimensional (3D) science learning where students engage with Science and Engineering practices (SEP), Disciplinary core ideas (DCI) and Cross Cutting Concepts (CC). This course drives student learning through inquiry and the exploration of scientific phenomena. There is an emphasis on what students know and be able to demonstrate through grade level performance expectations (PE) and these PE's build interdisciplinary connections within the instructional segments (I.S.) of content listed below. Biology is a "D" level life science course that is **REQUIRED FOR HIGH SCHOOL GRADUATION**. Topics in this course are included below, Medical Biology connections are in **bold**.

SEM 1	I.S. 1 Ecosystems Interactions & Energy	I.S.2 History of Earth's Atmosphere	I.S. 6 Ecosystem stability and Climate Change
Topics Covered	• Cycling of Matter • Ecosystem Interactions • Population Dynamics • Biodiversity • Group Behavior, Survival • Viruses, bacteria & disease outbreaks	• Organic Molecules • Photosynthesis & Cellular respiration • Flow of Energy and the Environment • History of Earth's Formation • Medical Careers	• Human Impacts on Environment/Biodiversity • Feedback in the Biosphere • Mechanisms and Impacts of Climate Change • Global Climate change & Impacts on Human Health
Sem 2	I.S. 5 Structure, Function & Growth	I.S.4 Inheritance of Traits	I.S. 3 Evidence of Common Ancestry & Diversity
Topics Covered	• Organism Organization • Cell Cycle/Division • DNA & protein structure • Homeostasis/Feedback Mechanisms • Human body systems	• Genetic Variation • Patterns of Inheritance • Human Genetic diseases.	• Evidence of Evolution • Natural Selection and Adaptations • Speciation • Biotechnology tools and lab skills.

Required Materials:

Textbook: Miller & Levine Biology. Prentice Hall. 2002-2008.

Charged Laptop and charger;

pencils/pen;

Helpful, but not required: glue stick, scissors, highlighters, colored pencils, binder

Scholarship Grades: Students demonstrate learning on the following categories:

Mastery/Perf Tasks/Final/Quizzes	35%
Laboratories/Activities	30%
CER Tasks	15%
Classwork	10%
Participation	10%

Standard letter grades will be used to assign Scholarship grades based on the following scale:

A 90%-100%	B 80%-89.99%	C 70%- 79.99%	D 60-69.99%	F 0-59.99%
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Mandatory Attendance: You are expected to attend class; If you are absent you are responsible for completing any missed work. All assignments that were due on the day of your absence will be **due on the day you return**. Please make reasonable attempts to stay in contact with me when you are absent. Due dates of missed work during your absence will be determined after returning to class. Always check Google classroom when absent for an extended period of time to receive any class presentations or assignments to prevent falling behind.

Mastery/Performance Tasks/Quizzes/Final Grade (35% of grade): Consist of content that is covered within the unit. Format can be multiple choice and/or short answer and/or performance tasks. If you do not meet the standard then you will be encouraged to make improvements and/or take an alternative assessment to improve your grade.

CER/Writing Tasks (15% of grade): Consists of explanatory responses to our lessons and activities from the unit. Students are required to write their scientific responses in the CER format. Retakes are encouraged to meet the standard.

Laboratories/Activities (30% of grade): All students must pass the Lab Safety test & submit the signed contract before participating in any labs. Labs may include “wet labs”, experimental design, and/or computer simulations. All labs are graded for mastery of standards.

Classwork/Participation (20% of grade): Classwork will be given on a regular basis and checked for completion. Students will keep paper classwork in personalized folders to keep in the classroom. Any class work not completed in class will be considered homework. If work is taken outside of class, they are responsible for returning it to their in-class folder. All classwork will be submitted upon completion of each unit. Participation may consist of class discussions, group collaborations and personal reflections. **All late assignments will be decreased by 10% if turned in after the original due date. Work will not be accepted after the final LATE due date.**

Academic Dishonesty: All work will represent the **original work** of each student. Any form of academic dishonesty will result in a **zero** on the assignment with no option to replace the score and may involve parent contact, referral to the counselor, and a decreased citizenship grade. Academic dishonesty also includes sharing of one’s work with other students. Consequences apply to all students involved.

Citizenship grades: The citizenship grade will be based on your **participation, effort in class, tardies, absences and overall adherence to classroom rules and safety. An F in citizenship will be earned if you have more than 5 unexcused absences and/or tardies.** These can be cleared by attending Saturday Scholars and/or Lunch study hall.

Academic Support: If you are not meeting the proficient level for each standard you will be given opportunities to reach proficiency during class time and tutoring time. Dates & times will be provided in advance by the teacher. Please take advantage of these opportunities.

Cell Phone Policy- Cell phones are not to be used during class time, unless permission is granted in relation to learning. **First warning**=student will put phone away in a backpack or pocket. **Second warning**=phone will be confiscated until the end of class. **Third warning**=phone will be sent to the office.

Confirmation that you have read the syllabus is found on the Google form loaded to Google classroom. --Students please complete the Google Form.

A copy of this syllabus has been shared with parents/guardians to the email on record. (NO parent/guardian signature is required)