

syllabus AP Biology



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Year: 2024-2025
Campus: Jim Ned High School

Prerequisites In order to enroll in AP Biology, the student must achieve a final course average of 80+ in the prerequisites (Biology, Chemistry), not including the ten percent weighting, if applicable.

Course Weighting Advanced courses are weighted by adding ten percent to the semester grade when determining class rank. Weighting is used for class rank determination only. Weighted grades do not appear on report cards or transcripts.

Course Eligibility In order to enroll in an advanced course, the student must achieve a final course average of 80+ in the previous advanced prerequisite (if applicable), not including the ten percent weighting. In order to remain in an advanced course, students must maintain a 75+ average, not including the ten percent weighting.

Course Description: The AP Biology course is the equivalent of a college freshman course for biology majors. The course is focused on four big ideas:

Big Idea 1 The process of evolution drives the diversity and unity of life.

Big Idea 2 Biological systems utilize free energy and molecular building blocks to grow, to reproduce, and to maintain dynamic homeostasis.

Big Idea 3 Living systems store, retrieve, transmit, and respond to information essential to life processes.

Big Idea 4 Biological systems interact, and these systems and their interactions possess complex properties

Course Outline

- ☐ Introduction: Scientific Method, Data Analysis (Chapter 1)
- ☐ Unit 1: Biochemistry, Enzymes (Chapters 2,3)
- ☐ Unit 2: Cells (Chapters 4,5)
- ☐ Unit 3: Bioenergetics (Chapter 6)
- ☐ Unit 4: Cell Cycle, Cell Division, and Genetics (Chapters 7,8)
- ☐ Unit 5: DNA, Protein Synthesis, Gene Regulation (Chapters 9,10,11)
- ☐ Unit 6: Genomes and Biotechnology (Chapters 12,13)
- ☐ Unit 7: Evolution (Chapters 14-18)
- ☐ Unit 8: Ecology (selections from Chapters 42-46)
- ☐ Unit 9: Plant Anatomy and Physiology (selections from Chapters 24-28)
- ☐ Unit 10: Animal Anatomy and Physiology (selections from Chapters 29-41)

Stay Informed About Grades, Attendance, and Timeline

- ☐ Students and parents are expected to subscribe to grade and attendance notifications in Parent Portal.
- ☐ Students are expected to regularly monitor Google Classroom communications from the teacher.
- ☐ **Important:** It is extremely important that both students and parents communicate with the teacher about grades early and often. Addressing performance concerns near the end of a six-week grading period seldom provides the student an opportunity to recover.

Grades

- **Tests (50%)** Tests consist of multiple choice, matching, fill in the blank, data analysis, short answer, and/or short essay questions. Tests will assess the student's ability to understand and integrate key facts and concepts from the unit objectives. Tests may not be retaken.
- **Labs (20%)** Labs consist of physical and virtual explorations, are typically student-designed, and often result in a formal lab report.
- **Reading Quizzes (20%)** Students will be assigned extensive reading assignments in this AP course. The readings will reinforce topics discussed in class and students are expected to ask questions during class about any portion of the reading that isn't completely understood. Quizzes may not be retaken.
- **Homework Quizzes (10%)** Homework assignments will be an integral part of the class designed to increase student understanding of topics discussed in class and covered in reading assignments. It is suggested that students complete all homework assignments, check their work using the provided keys, and ask questions during class or tutoring about any portion of an assignment that isn't completely understood. Quizzes may not be retaken.

Tutorials

- Tutorials are available Monday – Friday, 7:30 – 8:00am.

Excused Absences and Make-up Work

- **Excused, Expected Absences** If a student is going to be absent from class for an expected, excused absence (school-sponsored activity, medical appointment, etc.), the student is responsible for collecting assignments prior to the absence.
- **Excused, Unexpected Absences** If a student is absent due to an unexpected event (illness, family emergency, etc.), the student is responsible for collecting assignments immediately upon return. Labs may be replaced with an alternate assignment. Due dates will be adjusted accordingly.
- **Unexcused Absences** Assignments missed due to an unexcused absence are not accepted and are assigned a grade of zero. At the teacher's discretion, these assignments may be accepted, given extenuating circumstances.

Expectations

- The teacher and students will arrive to class on time and prepared every day ... there is a tremendous amount of material to cover.
- The teacher will engage students during class and students will participate during class.
- Students will complete all reading assignments and homework outside of class.

Policies

- **Academic Integrity:** Cheating of any kind will result in a grade of zero. Most lab work is performed in groups. You may consult with your group during lab time, but must submit original work for the lab.
- **Phones:** Phones may not be visible or audible while in the classroom. Students are expected to have phones turned off during class time. Phones that are seen or heard for any reason whatsoever will be confiscated by the teacher and submitted to the campus office.
- **Chromebooks:** Students are expected to bring the school-issued Chromebook, with sufficient charge, each day. Chromebooks will be used at teacher discretion.
- **Failure to Comply:** Classroom discussion will be an important component of this course. However, a directive is not an invitation to engage in conversation or debate. When given an instruction, if a student fails to comply fully, classroom and/or campus disciplinary measures will be leveraged.