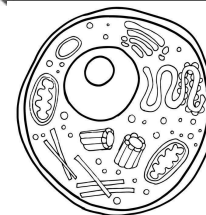




2024-2025

MS. RILEY'S MOLECULAR BIOLOGY COURSE SYLLABUS



WELCOME TO MOLECULAR BIOLOGY. GET READY TO GROW!

CONTACT INFORMATION

Kelsey Riley (*she/her/hers*)

Email: kelsey-riley@scusd.edu

Or, contact via Google Classroom private message

Room B-30 916-395-5090 ext. 506130

COURSE DESCRIPTION

Molecular Biology is an enriched alternative approach to freshman biology, which uses inquiry methods to present biology as an experimental science. This course challenges students to construct their understanding of concepts starting from the laboratory experience and to develop their scientific literacy skills. **Molecular Biology students will design experiments, collect and analyze data, think critically, and communicate scientifically.** The breadth of content covered in this course is the same as the traditional biology course and based on the Next Generation Science Standards (NGSS), but the focus is on biology at the molecular level. This course satisfies the biological science high school graduation requirement and the University of California laboratory science "A-G" requirement for biology.

WHAT WILL WE LEARN ABOUT?

This course will explore topics related to biology (the study of life), such as cellular structure & function, cellular respiration, photosynthesis, genetics, natural selection, etc. with an extra emphasis on biology at the molecular level. Earth science standards will also be integrated into this course, with a focus on the interplay between living organisms and our earth. In addition, the course will cover sexual health education and HIV prevention to fulfill the requirements of AB329 (CA Healthy Youth Act 2016).

MATERIALS NEEDED* - PLEASE BRING TO CLASS DAILY

- Laptop computer & charger
- Writing utensils (pencils, pens)
- College-ruled composition book to be used as a lab notebook
- Binder or folder to organize handouts
- Additional study materials recommended: post-it notes, colored pens

**If obtaining any of these materials presents a challenge, please see Ms. Riley. Please have all materials for class by Mon 8/26/24.*

GRADING POLICIES

Each assignment will be given a point value within an assignment category. Assignment categories will be weighted using the following scale to determine the final semester grade:

- **Warm Ups, Participation & Engagement (5%)**
Warm ups, lab & class discussion participation/engagement
- **Formative Assessments (30%)**
Formative: HW, quizzes, exit slips, etc.
- **Summative Assessments (50%)**
Summative: Unit exams, lab reports, projects, etc.
- **Semester Final Exam (15%)**

GRADING SCALE

The following percentage calculations will determine the final grade, per district policy:

Score	Final Grade
89.5 – 100%	A
79.5 – 89.4%	B
69.5 – 79.4%	C
59.5 – 69.4%	D
50 – 59.4%	F

COURSE OBJECTIVES

1. **Be prepared with a strong foundation** for a higher level of science education by developing the skills to think, act, comprehend, and communicate as scientists.
2. **Practice and apply scientific methods** through inquiry-based labs, simulations, and other activities.
3. **Develop scientific literacy skills.**
4. **Build a greater understanding of and appreciation for** the scientific method, biology, and the natural world to be informed and thoughtful global citizens.
5. **Develop important life skills and habits of success** such as collaboration, mindfulness, and resilience.

ABSENCES & LATE WORK POLICY

This course has a significant lab component, and it is critical that students attend and participate in all class meetings. However, I understand that sometimes there are circumstances outside of your control that may prevent you from attending class, including illness. If you need to miss a class for any reason, please make sure the absence is officially excused with the attendance office and please notify Ms. Riley in advance, or as soon as possible. We will work together to make arrangements for you to make up missed classwork and laboratory work (whenever possible), and to receive information and directions given in class. Please check Google Classroom for any assignments or materials posted during your absence.

All work is expected to be turned in on time, by the deadline for the assignment.

I understand that at the beginning of this school year, students are adjusting to new expectations and to being back in person and in high school, so I have started out the school year without a late work penalty to give students time in the first two weeks to adjust.

Beginning Tuesday 9/3/24, the following late work policy will go into effect:

Late work will ***automatically result in a 30% point reduction*** and will ***not*** be accepted ***more than 2 class days late***, unless it was due to an officially EXCUSED absence OR an extension was requested and already agreed upon with Ms. Riley **in advance**. **Any work submitted in Google Classroom must be marked done/turned in BEFORE the posted deadline time. Work submitted at or past the deadline date/time in Google Classroom is considered late, even if it is submitted later that same day.**

CLASS EXPECTATIONS

We are a TEAM in this class, and we take collective responsibility. The success of the whole group depends on the success of every individual. As a member of our team, please be:

- **PREPARED. *This means:*** Sitting in assigned seat beginning the Warm Up when the bell rings. Coming to class prepared each day with all materials and with all assignments completed on time. Maintaining an organized binder/folder and lab notebook (college-ruled composition notebook).
- **RESPECTFUL. *This means:*** Interacting with classmates, instructors, and guest speakers in a respectful, kind manner. Knowing that we are all different and valuing the power of that diversity in our abilities to learn from one another and grow together. Assuming that others have the best intentions and seeking to understand first. Disagreeing respectfully. Maintaining a safe space. Respecting the classroom property and materials at all times by keeping desk/lab station materials clean and orderly, and reporting any issues promptly to Ms. Riley.
- **ENGAGED. *This means:*** Actively learning by taking notes, doing assigned work, and giving full attention at all times while in class. Removing ear buds upon entering class and keeping them away in your bag during class time. Putting cell phones on silent and following the procedures for daily collection and redistribution of cell phones. Participating actively in class discussions. Asking and answering questions. Staying on task and engaged, and using time efficiently during labs and group work. Using laboratory materials and technology in ways that are safe and appropriate.

ACADEMIC DISHONESTY

Any assignment content composed by any resource other than you, regardless of whether that resource is human or digital, must be attributed to the source through proper citation. Academic dishonesty includes (but is not limited to) copying someone else's work or using the work of AI (ChatGPT) and presenting it as your own, cheating/looking at another student's test/quiz, plagiarizing, using lab data that you did not contribute to (without prior teacher permission), or allowing another student to copy your work. **Academic dishonesty is wrong, unethical, and immoral. It erodes community and respect.** Please refer to the JFK Academic Integrity Policy in the student handbook (which can be found on the JFK school website) for more detailed information about what constitutes academic dishonesty.

"Working together" should **never** produce two assignments that are word-for-word the same. Please *do* work together, BUT ALWAYS, ALWAYS, ALWAYS respond with your own thoughts, understandings, and words! On the first offense, the students involved will each receive a "0" and meet with the instructor. A subsequent case will result in parent and administrative notification.

You are expected to do your OWN work, IN YOUR OWN WORDS (unless otherwise instructed), obtain permission to use classmates' data, and evaluate your performance and that of your peers with honesty and integrity.

ADDITIONAL POLICIES

- **Food/gum/drinks:** To maintain a **safe** and **clean** laboratory and classroom environment, **no food, gum, or drinks** (besides water) are allowed to be out in this classroom at lab stations or desks. The hope is that you are able to use your lunch and passing periods for food and drinks, but if you need to eat a snack during class, please let Ms. Riley know and you can step into the side prep room to eat it.
- **Restroom policy:** Students are expected to plan ahead to use the restroom during passing periods and lunch to avoid missing valuable class time. For emergency situations, you will be given a restroom pass and will be expected to return in a timely manner.
- **Cell phone policy:** Cell phones can be a wonderful tool for communication and technology, but they can also serve as a major distraction to learning. Cell phones will be collected at the beginning of each class period, stored in a safe location, and redistributed to students at the end of the class period. Please refer to the [Molecular Biology Cell Phone Policy](#) for more details and rationale.

ACADEMIC SUPPORT

This is a course that should push you to learn and grow in new ways, and **we are a team!** I am here to coach and support you to the best of my ability. If you need additional support, please don't hesitate to ask.

Tutoring: I will be available before school most Monday mornings (7:55-8:25) for Molecular Biology tutorials, on a weekly basis throughout the year, starting in September. *You matter. I believe in you. You belong here.*

Student's Name (Please PRINT your name clearly): _____

Student's Molecular Biology Class Period: _____

DIRECTIONS: Please detach **THIS ENTIRE** page from the first page of the syllabus, sign below acknowledging that you have read the **Molecular Biology Syllabus** and that you understand and agree to the policies and requirements in this syllabus, have your parent/guardian sign and fill out the bottom portion as well, and then return it to Ms. Riley **on or before Fri. 8/23/24.**

Molecular Biology

John F. Kennedy High School

Statement of Understanding & Commitment

By signing this contract, the parent/guardian and the student acknowledge that they have read the preceding syllabus for John F. Kennedy High School's Molecular Biology class and *understand* and *agree* to the expectations and commitment necessary to be successful in this course.

_____/_____
Signature of Student **Date**

_____/_____
Signature of Parent or Guardian **Date**

Parent/Guardian's Name (Please PRINT): _____

Parent/Guardian's Preferred Contact Method & Contact Information:

Email : _____

Phone: _____

Parent/Guardian:

- In your opinion, what are your student's best qualities/characteristics?

- Anything else you'd like to share with me?