



Welcome To The 2011-12 Season of BioMedical Science Redwood High School - Instructor: Mr. Lovelady

lovelady@redwood.org 945.3600 ext. 6228
on-line access to the entire curriculum, daily agendas, and grades
redwood.org/lovelady

Year 15

This is an ambitious course of study designed to challenge and inspire students. The two semesters cover many of the topics traditionally taught in undergraduate pre-med and molecular biology programs. However, some topics and lab-work are reflective of graduate-level work. Redwood High School is proud to offer this program as part of a goal to provide meaningful elective course offerings in the Science Department. Much of the lab work is based on the latest innovations in biotechnology. The lab equipment used for BioMed is state-of-the-art, industry-grade equipment. Leading scientists from both academia and industry contribute to, and support, the BioMed program. All curricular materials are available from the web-site listed in the header.

What To Expect

College-Level Lecture and Discussion Sessions

Guest Speakers	Extensive Lab Work
Career Exploration	Advanced Biotechnology
Job Shadow	College Level Reading
Independent Projects	Scientific Writing

Good Times !

The term biomedical science is extremely broad, involving virtually every discipline and subdiscipline in the biological sciences. The RHS BioMed program is designed to provide students an opportunity to explore and develop a working knowledge and vocabulary of the following areas of science:



A generalized overview of the organization of the fall and spring semesters is as follows:

Fall - BioMed 1

- Career Exploration
- Biomolecular Structure and Function
- Microbiology
- Sterile/Aseptic Lab Protocols
- Bacterial Growth and Metabolism
- Immune System
- Cancer
- Viral Structure and Chemistry

Spring - BioMed 2

- Job Shadow Project
- DNA Structure and Chemistry
- Gene Regulation and Expression
- Genetic Engineering
- Polymerase Chain Reaction (PCR)
- Neurobiology



Student Expectations

DO YOUR BEST. YOUR GOAL: TO HAVE NO REGRETS WHEN THIS COURSE IS OVER.

Document everything we do in class. Review material daily! There is no better advice I can give you to help you be successful in BioMed. You will be held responsible for everything said, read, and done in this class. The amount and depth of material covered in this course will at times seem overwhelming. This is due to the nature of the subject matter that the course covers and the level to which you are expected to learn. BioMed is taught at the college level, often times reflecting upper division college and even graduate-level subject matter. These two semesters will help you develop a successful academic and scientific style that will serve you well in college, graduate school, and in the workplace.

- I consider you and I as partners: 50-50. I expect you to make this class a priority. I do.
- Ask questions on a regular basis. Seek any and all help you need to achieve the level of performance you have set for yourself (which I assume is high).
- Never forget that this is a working science lab. Follow all rules for handling materials and equipment.
- When in doubt ASK!
- Be a positive influence, for yourself and for others taking this course.

Special Projects

1. FALL SEMESTER: Each student will be required to research and investigate a career related to this course. The assignment requirements include an interview, a written report, and a formal oral presentation.
2. SPRING SEMESTER: Each student will be required to complete a "job shadow" in a field related to this course. The assignment will include written components, an oral and free standing presentation. This assignment is in lieu of a final exam.
3. SENIOR RESEARCH CLASS: Students enrolled in, or considering, the Senior Projects in Science Research Class are encouraged to use this course as an inspiration for research ideas. I will always agree to help/consult.

Grading Policies

1. Grades are based on the total points earned divided by the total points offered. This point system runs the entire semester.
2. What is graded: two exams per semester, the rare quiz, one independent project per semester, one group research project in semester, regular writing assignments (abstracts), and assignments related to labs.
3. Do not expect any individual assignment or exam to be curved.
4. There are no formal/traditional extra credit projects available. However, at times class wide extra credit opportunities may be offered.
5. Late assignments will not be accepted unless prior arrangements have been made, and then only under the most compelling circumstances.
6. If an absence is excused for any due date you must see me on your first day back to arrange another due date. I strongly recommend that you use the course web-site to keep up when you are absent.
7. Letter Grade Example: A+ (98 - 100); A (94 - 97); A- (90 - 93)