



Robert E. Fitch High School

SCIENCE ELECTIVES

“Imagination is more important than knowledge.” Albert Einstein



Honors Human Biology (T.R.C.C.) **(1 Credit)**

Honors Human Biology will relate structure and function to provide an integrated view of how the human body works. Numerous applications and everyday examples will show how the human responds to disease, injuries, as well as what conditions help to optimize health. The course reviews biochemistry, cell biology, tissues, and various organ systems. This course is recommended for health science majors (Nursing, PT, Med.). The class involves a strong lab component.

At the completion of the course, students with a “C” average (or above) will be able to test out for college credit (4 credit hours).



Botany (.5 Credit)

This half credit course offers students the opportunity to play with plants and learn valuable information at the same time. Basic plant biology and self-designed lab investigations are a critical part of the course. Field trips and botany walks give the students an experience not offered by other science classes.



Zoology and Honors Zoology (1 credit)

Topics include basic concepts of general **zoology**, including the origin of animal life, animal reproduction and development, classification of major phyla of animals and the major classes of vertebrates, structure, and function of animals, and basic concepts of animal behavior and ecology. Dissections will be part of the lab component.



Environmental Science (.5 Credit)

An elective science course. The program and objective are modeled after a natural resource based, environmental education competition called the Envirothon*. Like the competition, the goals of this course are to promote environmental stewardship, ethics and sense of ownership of our local ecosystems and natural resources. The program emphasizes the importance of environmental sensitivity while stressing a need to achieve a social, ecologic and economic balance in life. Units include Wildlife, Aquatics, Forestry, and Soil Science.

Marine Biology & Honors Marine Biology (T.R.C.C. Course) (1 Credit each)

This course involves a survey of marine plants and animals and their natural habitats. Local organisms are emphasized. This course is intended for a student with previous knowledge of biological concepts as well as an interest in the marine environment. Laboratory work (including dissection), research projects and Project Oceanology field trips are included in this course.

Both classes are T.R.C.C. accredited courses. (3 credit hours)



Honors Forensics (1 Credit)

This course is designed to challenge students with topics such as fingerprinting, DNA analysis, blood typing and spattering, trajectories (for ballistics as well as blood spattering) comparative anatomy, and chemical analysis of drugs, poisons, and trace evidence, and the dynamics of Physics.

Students will learn about the careers involved with Forensic Science and will play mock roles as experts in the field to solve crimes. They will learn team work in solving the mock crimes and have a chance to change their roles as the year progresses. The students will all be given the tools to interpret data and techniques involved for both chemical and biological analysis of evidence.



The Science Dept. also offers the following advanced classes that can be taken on an "Elective" basis:

- AP Biology (Agsalud)
- AP Chemistry (Rafka)
- AP Environmental Science (England)
- AP Physics 1 and 2 (Chidley)

Students wishing to take these courses should speak with their counselors or the course teacher.