



## **Brookline High School**

**Science Department**

**115 Greenough Street**

**Brookline, MA 02445**

**(617) 713-5365**

### ***Course Selection of Optional Science Courses***

Teachers will be advising students on the differences between the various optional courses. Here is a list of all courses, and a brief description of the type of student who takes these courses. Most classes are less likely for Juniors to be able to enroll in, and the courses will be offered with enough student interest:

**AP Physics – 1&2** This course is for students broadly interested in many disciplines of science at an advanced level; such as medicine, biophysics, and engineering. The course is ‘flipped,’ where students watch video lectures at home and collaboratively solve problems and perform experiments in class.

**AP Physics – C** This course is for students interested in Physics at an advanced level. It covers the content of both Mechanics and Electricity & Magnetism. Students should be concurrently enrolled in AP Calculus (AB or BC).

**AP Chemistry** This course is for students interested in Chemistry at an advanced level. Students will find this course to be a very good preparation for all Biology electives, and collegiate studies in Chemistry.

**Biology II H** This course is for students interested in exploring new topics in biology such as infectious disease, neurobiology, and animal behavior. Experimental design is a focus for second semester, culminating in a Final Project.

**AP Biology** This course is for students interested in Biology at an advanced level. Students will find this course to be a very good preparation for collegiate studies in Biology.

**Environmental Science and Society (Standard or Honor)** This course is designed for students interested in the interconnectedness of earth’s systems and the impacts of human-caused environmental change on wild and human societies.

**AP Environmental Science** This course is for students interested in Earth Science, Ecology, applied Chemistry and environmental issues at an advanced level. Students are expected to read copiously, should have strong math and analytical skills, and be earnest participants in class discussions.

**Anatomy & Physiology (Standard or Honor)** This course is for students interested in the human body. Students learn via a combination of lecture, case studies, lab, and dissection. It is a perfect choice for anyone pursuing any career in health care.

**Body/Mind H** This course is for students who are interested in the biological underpinnings of mind-

body practices. Topics include immunology, epigenetics, the microbiome, neurology, and the stress response. The second semester involves weekly readings and students also explore mind-body practices such as yoga, qi gong, and meditation.

**Marine Biology (Standard or Honor)** This course is for students interested in Biology and ocean science. It is focused on the ocean environment, ecosystems and marine organisms.

**Engineering by Design** This course is perfect for students who love problem solve with their hands and learn by building. Ask about it, or peek into the makerspace: room UA14.

**Engineering Innovation & Design Honor Design : Create : Innovate** Also hosted in the makerspace, this course is perfect for students who want to bridge creativity with design. Students will focus on prototyping and the creation of real products (2D & 3D), all while infusing artistic elements into the final product.

**Astronomy (Standard or Honor)** This course is for students who are interested in stars and planets.

### **Semester Courses**

**Drawing for Understanding in Field Science** This course can be taken for Visual Arts or Science credit. Students will explore the natural world by observing complex organisms and systems. They will also learn how drawing is used for scientific study, and how science informs and deepens artistic practice.

**Forensic Science (Standard or Honor)** This course is for students who love crime solving.

**Genetics (Standard or Honor)** This course is for students who enjoyed the Genetics units in Biology.

Sincerely,  
*Ed Wisner*  
Curriculum Coordinator for Science