Brookline High School

Science Department

Course Selection of Optional Science Courses

This is a list of all available courses, and a brief description of the type of student who takes these courses. Larger descriptions are in the course catalog, and at bhs.brookline.k12.ma.us/science.html and from the Women in STEM Club at bhswistem.wixsite.com/bhswistem.

Sincerely,
Ed Wiser
Curriculum Coordinator for Science

AP Physics For students interested in Physics at an advanced level, or students broadly interested in many disciplines of science at an advanced level; such as medicine, biophysics, and engineering. Students work collaboratively to solve problems and perform experiments in class. It covers many topics in Physics, including fluid dynamics, thermal physics, modern physics, mechanics, and electricity & magnetism. Students should be concurrently enrolled in AP Calculus (AB or BC).

AP Chemistry 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.

Biomedical Science Honor For students interested in medicine, health, and molecular/cell biology. Topics include infectious disease, immunology, molecular genetics, biotechnology, neurobiology, metabolic disease, and cancer through a combination of lecture/ discussion and collaborative activities & labs.

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, as long as they did not take Biology in Summer school.

AP Environmental Science For students interested in Earth Science, Ecology, Chemistry and environmental issues at an advanced level. Students are expected to read copiously, have strong math skills, and be earnest participants in discussions.

Anatomy & Physiology/Anatomy & Physiology Honor For students interested in the human body, with emphasis on the structure and function of tissues, organs and organ systems. Students dissect organs and a fetal pig, will read articles about current research and disease treatments, and examine and memorize all the muscles and bones of the body. Memorization is an important part of this course. A perfect choice for pursuing any career in health care.

Climate Science & Social Change A course on the science of climate change, the impacts of climate change on ecosystems and human societies, and strategies for mitigating and adapting to climate change.

Application Process Link

Neuroimmunology (formerly Body/Mind) Honor 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, gi gong, and meditation.

Marine Biology/Marine Biology 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 For students who love to problem solve with their hands and learn by building. Ask about it, or peek into UA14.

Engineering Innovation & Design Honor ***Design : Create : Innovate*** Also hosted in UA14, this course is 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/Astronomy 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/Forensic Science Honor This course is for students who love crime solving.