



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. Most classes are less likely for Juniors to be able to enroll in, and the courses will be offered with enough student interest:

Sincerely,

Ed Wiser

Curriculum Coordinator for Science

AP Physics – 1&2 For 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.

AP Physics – C For students interested in Physics at an advanced level. It covers both 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.

Environmental Science & Society/ Environmental Science & Society Honor For 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 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.

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.

Genetics/Genetics Honor This course is for students who enjoyed the Genetics units in Biology.

Pending Courses

Materials Science A student-centered, hands-on exploration of how different materials relate to their use in the real world: sports equipment, clothing, vehicles, aerospace, construction, medicine delivery, etc.



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.





BHS Science Courses – for 12th Graders

To request courses for next year, please fill out this form and return it to your teacher by the due date. Your science teacher will sign this document to signify that the choices are appropriate. Then this form will be sent to your counselor for approval as they enter the additional course request. Finally, once the student portal opens, **STUDENTS** will enter any alternate choices to help create an optimal schedule.

Course Request

Teacher Enters

_____ SC4140 AP Physics 1&2
_____ SC4141 AP Physics C
_____ SC4240 AP Chemistry
_____ SC4320 Anatmy/Physio
_____ SC4330 Anatmy/Physio H
_____ SC4430 Biomedical Sci H
_____ SC4440 AP Biology
_____ SC4540 AP Enviro Sci
_____ SC4520 Env Sci & Society
_____ SC4530 Env Sci & Society H
_____ SC4570 Climate Sci & Social Chg
_____ SC5020 Astronomy
_____ SC5030 Astronomy H
_____ SC5130 Body/Mind H
_____ SC5530 Eng By Dsgn
_____ SC5600 Eng Innovation & Dsgn H
_____ SC5620 Marine Biology
_____ SC5630 Marine Biology H

Semester Courses

_____ SC1300 Drawing For
Understanding in Field Science
_____ SC5820 Forensic Science
_____ SC5830 Forensic Science H
_____ SC5920 Genetics
_____ SC5930 Genetics H

Additional Course Request

Counselor Enters

_____ SC4140 AP Physics 1&2
_____ SC4141 AP Physics C
_____ SC4240 AP Chemistry
_____ SC4320 Anatmy/Physio
_____ SC4330 Anatmy/Physio H
_____ SC4430 Biomedical Sci H
_____ SC4440 AP Biology
_____ SC4540 AP Enviro Sci
_____ SC4520 Env Sci & Society
_____ SC4530 Env Sci & Society H
_____ SC4570 Climate Sci & Social Chg
_____ SC5020 Astronomy
_____ SC5030 Astronomy H
_____ SC5130 Body/Mind H
_____ SC5530 Eng By Dsgn
_____ SC5600 Eng Innovation & Dsgn H
_____ SC5620 Marine Biology
_____ SC5630 Marine Biology H

Semester Courses

_____ SC1300 Drawing For
Understanding in Field Science
_____ SC5820 Forensic Science
_____ SC5830 Forensic Science H
_____ SC5920 Genetics
_____ SC5930 Genetics H

Alternative Choices

Student Enters

_____ SC4140 AP Physics 1&2
_____ SC4141 AP Physics C
_____ SC4240 AP Chemistry
_____ SC4320 Anatmy/Physio
_____ SC4330 Anatmy/Physio H
_____ SC4430 Biomedical Sci H
_____ SC4440 AP Biology
_____ SC4540 AP Enviro Sci
_____ SC4520 Env Sci & Society
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_____ SC5020 Astronomy
_____ SC5030 Astronomy H
_____ SC5130 Body/Mind H
_____ SC5530 Eng By Dsgn
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Semester Courses

_____ SC1300 Drawing For
Understanding in Field Science
_____ SC5820 Forensic Science
_____ SC5830 Forensic Science H
_____ SC5920 Genetics
_____ SC5930 Genetics H

Student Name (Please Print)

March 1, 2019

Due Date

Teacher Signature

Counselor Name (Please Print)

Comments: