



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, at ore at bhs.brookline.k12.ma.us/science.html and from the Women in STEM Club at bhs.wistem.wixsite.com/bhs.wistem. 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. Students work collaboratively to 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.

Biomedical Science Honor (formerly Bio 2 H) This course is a molecular and cell biology course, for students interested in medicine and health. Topics include infectious disease, immunology, molecular genetics, biotechnology, neurobiology, metabolic disease, and cancer through a combination of lecture/discussion and collaborative activities & labs. Students will explore these issues in depth, including the molecular mechanisms underlying various pathologies.

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/Environmental Science and Society 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/Anatomy & Physiology Honor This course is 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, they 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. It is a perfect choice for anyone pursuing any career in health care.

Body/Mind Honor 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, 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 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/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.

Sincerely,
Ed Wiser

Curriculum Coordinator for Science



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

Full Year Courses

- _____ 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
- _____ SC5020 Astronomy
- _____ SC5030 Astronomy H
- _____ SC5130 Body/Mind H
- _____ SC5530 Eng By Dsgn
- _____ SC5600 Eng Innovate & Dsgn H
- _____ SC5620 Marine Biology
- _____ SC5630 Marine Biology H

Semester Courses

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

Student Name (Please Print)

March 1, 2019

Due Date

Additional Course Request

Counselor Enters

Full Year Courses

- _____ 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
- _____ SC5020 Astronomy
- _____ SC5030 Astronomy H
- _____ SC5130 Body/Mind H
- _____ SC5530 Eng By Dsgn
- _____ SC5600 Eng Innovate & Dsgn H
- _____ SC5620 Marine Biology
- _____ SC5630 Marine Biology H

Semester Courses

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

Teacher Signature

Counselor Name (Please Print)

Alternative Choices

Student Enters

Full Year Courses

- _____ 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
- _____ SC5020 Astronomy
- _____ SC5030 Astronomy H
- _____ SC5130 Body/Mind H
- _____ SC5530 Eng By Dsgn
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Semester Courses

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Understanding in Field Science Credit
- _____ SC5820 Forensic Science
- _____ SC5830 Forensic Science H
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Comments: