



Brookline High School

Science Department
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Biology Course Selection

Chemistry teachers will be meeting with students, with the help of their fellow Biology teachers, to help students understand the differences between the various Biology courses. They will also give one-on-one recommendations when appropriate. In the meantime, here are Biology teachers' words on how to choose a course:

Biology I is a rigorous Biology course for students who want a solid foundation in Introductory Biology. Students learn material primarily through lecture/discussion, and participate in labs and activities that further emphasize or expand on lecture material. Students learn about a wide range of topics within Biology; while many of these topics overlap with those on *Biology I Honor*, *Biology I* moves at a more moderate pace and does not delve into as much depth.

Homework in *Biology I* consists of both guided reading, with key questions, and independent reading-and-note-taking. Homework also involves analyzing lab results, as well as reviewing content taught in the classroom.

Biology I Honor is a fast-paced, intense Introductory Biology course based around lecture and discussion of a wide-range of content; beginning with Biochemistry, cells, DNA action, reproduction, genetics, ending with evolution with body systems and ecology and climate change embedded throughout the year.

Homework in *Biology I Honor* may consist of reading and taking notes from the text that supplements and guides their class lecture notes, completing practice quizzes on Canvas, and completing inquiry-based labs and activities.

The students in *Biology I Honor* are comfortable learning independently through reading, are well organized, and are ready for a challenge. Grades are heavily weighted towards summative assessments. Students interested in enrolling in *AP Biology* or *AP Environmental Science*, will need *Biology I Honor* to satisfy the expectations of those courses.

Investigative Biology I Honor is an introductory Biology course, formerly known as *BSCS Biology I Honor*. Its abbreviated name is *iBio*. Students complete extra assignments, read articles, and answer more challenging test questions for Honor credit, while participating in a heterogeneous classroom environment. Non-leveled credit is an option. *iBio* is a lab course that engages students through collaborative learning and is taught through hands-on activities, labs, discussion, projects and inquiry. Students learn primarily through their small group work, while lecture-discussion and readings supplement their learning. This course organizes content around major biological concepts: Starting with the main theme of Evolution, and weaving evolution into every unit, students then study Ecology, Biochemistry, Cells, DNA action, Reproduction, and Genetics.

Homework in *iBio* involves reading, writing responses to class activities, and answering lab follow-up questions.

The students in *iBio* are active learners; they learn by *doing*. Students work in groups, as group collaboration is a large piece of the learning experience. Because of this, students with attendance issues or who are not comfortable working with peers should not enroll in *iBio*.

Additional Courses are possible, only with consultation from guidance counselors and teachers. It is common for students to also enroll in an optional course, but students need to plan their entire schedule and their plans for graduation before this extra course can be requested. **Instructions for this process are on the back of this letter.**

Summer school is *not* the best option for students hoping to accelerate through coursework, and must consult me before considering any summer school course. If a student is passionate about science, engineering, or related fields, they should consider exploring options other than a Biology course over the summer.

If you have any questions, feel free to contact me.

Sincerely,

Ed Wisner

Curriculum Coordinator for Science

11th Grade Optional Science Course Selection

Additional Courses are possible to schedule, only with consultation from guidance counselors and teachers. They will help students create a balanced schedule, which is a top priority. BHS Students have a wide range of courses available to them after they complete Physics, Chemistry and Biology. However, it is not uncommon for students to enroll in an optional course in addition to Biology in 11th grade. Students need to consider their entire 11th and 12th grade schedules and credit requirements, before this additional course can be requested. For instance, **elective credits** need to be fulfilled and **US History** is an 11th grade graduation requirement that cannot be deferred.

Some years, juniors have been able to take spaces in courses that are not completely filled by seniors. And AP Chemistry has been a popular course with many juniors who can balance it in addition to Biology and other classes. However, this is not a guarantee of placement into an additional course and alternates should be considered and entered into the student portal by the student.

Instructions for this process are as follows:

1. Student gathers information from BHS Science website and presentation from current teacher in February
2. Student considers how this additional course will fit in their 11th and 12th grade schedules
3. Student goes to Guidance Counselor for a consultation if required
4. Student obtains Google form from Chemistry Teacher
5. Guidance Counselor is alerted and may provide information
6. Student fills out the Google form for their teacher to “sign” and consult with students about their choices.

All optional courses and their availability for 11th grade students.

Note: there are possible exceptions, but these are realistic guidelines based on available seats.

Possible for 11th Graders

SC4140 AP Physics (w/ *math prerequisites*)
SC4240 AP Chemistry
SC5020/30 Astronomy/Astronomy H
SC5530 Engg By Design – *encouraged for 11th graders*

Semester Courses

SC1300 Drawing For Understanding in Field Science – *available for all grades*
SC5820/30 Forensic Science/Forensic Science H
SC/SO4530 The History and Science of Sex, Gender, and Sexuality – possible for 11th graders

Possible only for 11th grade students who move to BHS, and have finished Biology

SC4320/30 Anatomy & Physiology/Anatomy & Physiology H
SC4430 Biomedical Science H
SC4520/30 Environmental Science & Society/Environmental Science & Society H
SC/SO4570 Climate Science and Social Change (*pending funding*)
SC5130 Body/Mind H
SC5620/30 Marine Biology/Marine Biology H

Not possible for BHS 11th graders

SC4440 AP Biology
SC4540 AP Environmental Science
SC5600 Engg Innovation and Design H