

Guidelines for current freshmen

The 10th grade Science course is a Math-based Science course.

It is **important** to look at the student's understanding and grades in their 9th grade MATH class, rather than their Biology class.

If a student excels at math and understands it easily, **Advanced Chemistry** may be a good fit.

If a student struggles with math and needs additional time or support, **IPC** will give the practice and skills needed to be successful in Academic Chemistry the following year.

If the student is in between, **Academic Chemistry** may be the right course to take.

Information for current sophomores and juniors

If the student is in IPC, they should take Academic Chemistry next.

AP Environmental Science (APES) is a college-level class. Students can take it concurrently with Chemistry. Students should have strong writing, math, and study skills and be willing to attend tutoring if they need help. Students must take and pass the AP exam in order to get college credit.

Aquatic Science can also be taken concurrently with Chemistry or after Chemistry.

Environmental Systems can also be taken concurrently with Chemistry or after Chemistry.

Physics: **4-year universities and colleges want to see Physics on a student's transcript!**

- **Academic Physics** can be taken concurrent with Algebra 2
- **AP Physics I** is a college-level class that can be concurrent with PreAP Algebra 2. Students must take and pass the AP exam in order to get college credit.
- **ONRAMPS Physics** is a college-level class that can be concurrent with PreAP Algebra 2. Students can get UT credit based on the entire year's work.
- **AP Physics C** is a college-level course. Students must have taken one of the other Physics courses before taking this and can be concurrent with Calculus. Students must take and pass the AP exam in order to get college credit.

AP Biology is a college-level class. Students should have strong writing, math, and critical thinking skills and be willing to work hard. Students must take and pass the AP exam in order to get college credit.

AP Chemistry is a college-level class. Students should have enjoyed PreAP Chemistry, have strong math, and be willing to attend tutoring if they need help. Students must take and pass the AP exam in order to get college credit.

Engineering Design and Problem-Solving is dual credit with UT and must be taken after Algebra 1 and Geometry, concurrent with Algebra 2.

Anatomy and Physiology is a weighted course. Students should be interested in a science career path, are expected to memorize scientific vocabulary, and will do a lot of laboratory work, including dissection.

Biotechnology 1 is a weighted course with ACC articulated credit. Students should have excellent writing and time management skills. Class is based around industry expectations.

Medical Microbiology is a weighted course. Students are expected to design their own labs, work collaboratively, and will do a lot of laboratory work. Recommended for students interested in scientific careers, especially in the medical field.

Biotechnology 2 is a weighted course that builds upon knowledge from Biotechnology 1. Students should have an interest in molecular lab work, be problem-solvers, and be self-disciplined. Recommended for students interested in scientific careers.

James Bowie High School Science Course Sequence

***Students must be enrolled in a science class every year they are at Bowie (including senior year)**

