

**Recommended Course Sequencing**  
**St. Ignatius College Preparatory Science Department**

Our vision is that all students at SI take the **four years** of science courses best suited to their interests and abilities. We urge students to make informed and realistic decisions about their science course selections in consultation with their counselors, science teachers, and parents. This document aims to unify & clarify the course requirements as presented in the official course catalog.

Our core courses are **Biology, Chemistry, and Physics**. *Science Electives* include Astronomy, Engineering, Environmental Science, Human Anatomy & Physiology, Science Research Project and Advanced Science Research Project. These electives are designed as college-preparatory courses of comparable rigor and depth to our core courses. *Advanced Placement* courses include AP Biology, AP Chemistry, and AP Physics C, and AP Science Laboratory. The Laboratory course, new for the 2009-10 school year, is taken concurrently with an AP Science course to allow adequate time for in-depth laboratories before or after school.

AP Science courses are taught at the college level and require an extraordinary amount of time and attention outside of class. The homework and study loads for these classes are significantly higher than for our non-AP classes. These AP Science courses are offered as *second-year* courses.

For the *vast majority* of students seeking a typical college-preparatory sequence in science, we recommend:

*Standard Sequence*

<u>Grade</u>	<u>Science Course</u>
9 <sup>th</sup>	Biology
10 <sup>th</sup>	Chemistry or Honors Chemistry
11 <sup>th</sup>	Physics or Honors Physics*
12 <sup>th</sup>	Astronomy, Engineering, Environmental Science, Human Anatomy & Physiology, AP Biology, AP Chemistry, or AP Physics C, AP Science Laboratory

\* students in Honors Physics may elect to study for and take the AP Physics B exam at the end of the year.

For a *small number* of students with the deepest interest, preparation, and abilities in science, we recommend:

*AP Science Concentration*

<u>Grade</u>	<u>Science Course</u>
9 <sup>th</sup>	Biology
Summer	<i>Chemistry if available</i> *
10 <sup>th</sup>	AP Biology <sup>†</sup>
Summer	<i>Chemistry or Physics if available</i> *
11 <sup>th</sup>	AP Chemistry <sup>†</sup>
Summer	<i>Physics if available</i> *
12 <sup>th</sup>	AP Physics C <sup>†</sup>

\* Students in this sequence should enroll in Summer Chemistry after the 9<sup>th</sup> or 10<sup>th</sup> grade and in Summer Physics after the 10<sup>th</sup> or 11<sup>th</sup> grade. AP Science courses are *second-year* courses. Students who take the AP course without the introductory course may face two disadvantages: first, they may struggle in the AP course due to lack of preparation; second, and perhaps more importantly, since the AP courses are limited in scope and topical coverage, these students may lack a well-rounded science education upon graduation.

<sup>†</sup> This sequence requires the recommendation of your teacher at each level and the approval of the science department chair (Mr. Philhour). You can obtain the appeal form required to enroll in this sequence from your counselor or from any science teacher. Typically only a few dozen students in any particular entering class are sufficiently prepared to successfully complete this sequence. These students should be on track to enroll in AP Calculus BC in their senior year.

For a *small number* of students who may need to delay Chemistry beyond the sophomore year, we recommend:

*Delayed Chemistry Sequence*

<u>Grade</u>	<u>Science Course</u>
9 <sup>th</sup>	Biology
10 <sup>th</sup>	Human Anatomy & Physiology <sup>†</sup>
11 <sup>th</sup>	Chemistry
12 <sup>th</sup>	Physics

<sup>†</sup> Typically only a few dozen students in any particular entering class lack sufficient preparation to find success in the standard sequence. Those students who do struggle with science are best served by taking *more* science - not less - to overcome these deficiencies in preparation. For this reason, we continue to recommend four years of science even to students for whom science (or math) at this level presents difficulty. Counselors should consult with the department chair (Mr. Philhour) when considering such a delay.