

## Science Sequencing:

### For Foundation science requirement:

1. Biology (grades 9, 10, 11. No prerequisites), AP Biology (see chart), or IB Biology (see chart)
2. One credit selected from the following laboratory-based sciences:
  - IPC (grades 9 and 10. No prerequisites)
  - Chemistry, AP Chemistry, or IB Chemistry (see chart)
  - Physics, AP Physics, IB Physics, or Principles of Technology (see chart)
3. Additional credit selected from the following laboratory-based sciences, list (e)(5)

<b>(e)(5)</b>	<b>Recommended Grade Level</b>	<b>Science Prerequisite</b>	<b>Math Prerequisite</b>
Chemistry	10, 11, 12	Required: 1 unit HS science	Required: Algebra I Suggested: completion of or concurrent enrollment in a second year of math
Physics	9, 10, 11, 12	None	Suggested: Algebra I as prerequisite or co-requisite
Aquatic Science	10, 11, 12	Required: 1 unit of biology Suggested: Chemistry or concurrent chemistry	none
Astronomy	11, 12	Suggested: 1 unit HS science	none
Earth and Space science	11, 12*	Required: 3 units of science, one of which may be taken concurrently	Required: 3 units of math, one of which may be taken concurrently
Environmental systems	11, 12	Suggested: 1 unit HS life science and 1 unit HS physical science	none
AP Biology	none listed	Recommended: Biology, Chemistry	none
AP Chemistry	none listed	Recommended: Chemistry	Recommended: Algebra II
AP Physics 1 Algebra-based	none listed	*Recommended: Physics	*Recommended: Algebra I, Algebra II, Geometry
AP Physics 2 Algebra-based	none listed	*Recommended: Physics	*Recommended: Algebra I, Algebra II, Geometry
AP Physics C	none listed	Recommended: Physics	Recommended: Algebra I, Algebra II, Geometry
AP Environmental Science	none listed	Recommended: 2 years of high school	Recommended: Algebra I

		laboratory science including one year of life science and one year of physical science.	
IB Biology	none listed	Recommended: 2 years of high school laboratory science	none
IB Chemistry	none listed	Recommended prerequisites: two years of high school laboratory science	none
IB Physics	none listed	Recommended prerequisites: two years of high school laboratory science	none
IB Environmental Systems	none listed	Recommended prerequisite: one year of high school science.	none
Advanced Animal Science	12	Recommended prerequisite: a minimum of one credit from the courses in the Agriculture, Food, and Natural Resources cluster.	none
Advanced Plant and Soil Science	12	Recommended prerequisite: a minimum of one credit from the courses in the Agriculture, Food, and Natural Resources cluster.	none
Anatomy and Physiology	10, 11, 12	Recommended prerequisites: three credits of science.	none
Medical Microbiology	10, 11, 12	Recommended prerequisites: three credits of science.	none
Pathophysiology	11, 12	Recommended prerequisites: three credits of science.	none
Food Science	11, 12	Recommended prerequisite: Principles of Hospitality and Tourism.	none
Forensic Science	11, 12	Prerequisites: Biology	none

		and Chemistry. Recommended prerequisites: Principles of Law, Public Safety, Corrections, and Security and Law Enforcement I.	
Advanced Biotechnology	11, 12	Recommended prerequisites: Biology and Chemistry.	none
Principals of Technology	10, 11, 12	Prerequisites: one unit of high school science	Prerequisites: Algebra I.
Scientific Research and Design	11, 12	Prerequisite: one unit of high school science.	none
Engineering Design and Problem Solving	11, 12	Prerequisites: Chemistry, Physics.	Prerequisites: Geometry, Algebra II,
Principals of Engineering			

\*These prerequisites were taken from AP Physics B. No information is included on TEA website under section Other Science Courses for these courses.

**STEM Endorsement: Four** credits in science by completing **chemistry, physics,** and **TWO additional science courses** from allowable 4<sup>th</sup> science list.

Endorsements:

1. **Arts and Humanities:** A student may earn an *Arts and Humanities* endorsement by completing the requirements specified in subsection (e) of this section. (see below)
2. **Business and Industry:** A student may earn a *Business and Industry* endorsement by completing the requirements specified in subsection (e) of this section. (see below)
3. **Multidisciplinary:** A student may earn a *Multidisciplinary* endorsement by completing the requirements specified in subsection (e) of this section. (see below) Four credits in each of the four foundation subject areas to include English IV and chemistry and/or physics.
4. **Public Services:** A student may earn a *Public Service* endorsement by completing the requirements specified in subsection (e) of this section. (see below)
5. **STEM:** A student may earn a *STEM* endorsement by completing the requirements specified in subsection (e) of this section (see below), including Algebra II, chemistry, and physics and four credits in science by successfully completing chemistry, physics, and two additional science courses by selecting courses from subsection (e)(5).

(e) To earn an endorsement a student must demonstrate proficiency in the following: an additional credit in science that may be selected from one full credit or combination of two half credits from two different courses, subject to prerequisite requirements, for the following courses: