

185 --- **Science. All Science. 5-12.**

This endorsement authorizes the holder to teach all high school science courses.

Complete 36 semester hours of credit in science which includes the following:

- 9 semester hours of credit in earth and space science which includes the following essential concepts and skills:
 - Understand and apply knowledge of energy in the earth system
 - Understand and apply knowledge of geochemical cycles
 - Understand and apply knowledge of the origin and evolution of the earth system
 - Understand and apply knowledge of the origin and evolution of the universe
- 9 semester hours of credit in life science/biological science which includes the following essential concepts and skills:
 - Understand and apply knowledge of the cell
 - Understand and apply knowledge of the molecular basis of heredity
 - Understand and apply knowledge of the interdependence of organisms
 - Understand and apply knowledge of matter, energy, and organization in living systems
 - Understand and apply knowledge of the behavior of organisms
 - Understand and apply knowledge of biological evolution
- 9 semester hours of credit in physics/physical science which includes the following essential concepts and skills
 - Understand and apply knowledge of the structure of atoms
 - Understand and apply knowledge of the structure and properties of matter
 - Understand and apply knowledge of motions and forces
 - Understands and applies knowledge of interactions of energy and matter
 - Understands and applies knowledge of conservation of energy and increase in disorder
- 9 semester hours of credit in chemistry which includes the following essential concepts and skills:
 - Understand and apply knowledge of chemical reactions
 - Design and conduct scientific investigations

9 hours in earth sciences

Course #	Course Title	Institution	Semester Hr.	Year Completed

9 hours in biology

Course #	Course Title	Institution	Semester Hr.	Year Completed

9 hours in physics/physical science

Course #	Course Title	Institution	Semester Hr.	Year Completed

9 hours in chemistry

Course #	Course Title	Institution	Semester Hr.	Year Completed

Methods for content and level

Graded field experience (if needed)