

HIGH SCHOOL SCIENCE COURSE CODES GRADES 7-12

High school (grades 9-12) courses in Science require 150 contact hours per credit.

Course Code	Course Name	Grade Levels	Description	Accreditation Time/ Credit Options*	License/credential Required**
00092	Title I Secondary Generalist	7-8	To instruct students in a secondary setting who have failed to benefit from regular classroom instruction in any content subject where reading is a required skill.	Supplemental instruction -- provided as needed	License Code: 05020- Composite English ◆ 7-12 or 9-12 OR 15035-Composite Social Studies ◆ 7-12 or 9-12 OR 13047-Composite/General Science ◆ 7-12 or 9-12 AND Secondary Generalist credential
13006	Life Science	7-8	The study of plants and animals. Agriculture, health, and conservation of the environment should be included.	NDAC 67-19-01-34 (1)(c) ◆ 200 minutes per week	License Code: 13010-Biology ◆ 7-12, 9-12, or 7-8 OR 50417-Middle School Science Major Equivalency ◆ 5-8 or 7-8
13008	Earth Science	7-8	Astronomy, meteorology, ecology, geology and paleontology, and experimental activities.	NDAC 67-19-01-34 (1)(c) ◆ 200 minutes per week	License Code: 13035-Earth Science ◆ 7-12, 9-12, or 7-8 OR 50417-Middle School Science Major Equivalency ◆ 5-8 or 7-8
13009	Health	7-8	Community health, consumer health, disease control, family living, mental health, personal health, safety, and accident prevention. Note: Health courses are also coded in Family and Consumer Sciences, Health, and Physical Education areas.	NDAC 67-19-01-34 (1)(f) ◆ 50 minutes per week	License Code: 13010-Biology ◆ 7-12, 9-12, or 7-8 OR 50417-Middle School Science Major Equivalency ◆ 5-8 or 7-8

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00092	Title I Secondary Generalist	9-12	To instruct students in a secondary setting who have failed to benefit from regular classroom instruction in any content subject where reading is a required skill.	Supplemental instruction -- provided as needed	License Code: 05020- Composite English ◆ 7-12 or 9-12 OR 15035-Composite Social Studies ◆ 7-12 or 9-12 OR 13047-Composite/General Science ◆ 7-12 or 9-12 AND Secondary Generalist credential
13020	Biology	9-12	To develop an understanding of life processes which are basic to life. The study of plants, animals, and the human body. The study of drugs, alcohol, and tobacco may be included. Laboratory experiences with an abundance of living plants and animals, both in the classroom and out-of-doors.	½ or 1	License Code: 13010-Biology ◆ 7-12 or 9-12
13021	Human Anatomy ◆ Prerequisite: Biology 13020	10-12	An introduction to provide an advanced study of the structure of the human body. Note: This course can be taught for Science credit only. Human Anatomy courses are also coded in Health and in Physical Education areas.	½ or 1	
13022	Physiology ◆ Prerequisite: Biology 13020	10-12	To provide students with detailed information about the human body. A study of the function of living organisms and their parts. The functions of the human body beyond those already covered in biology. Note: This course can be taught for Science credit only. Physiology courses are also coded in Health and in Physical Education areas.	½ or 1	
13023	Health	9-12	Community health, consumer health, disease control, family living, mental health, personal health, safety, and accident prevention. Note: This course can be counted as a health course to meet the statutory requirement for high school curriculum. Health courses are also coded in Family and Consumer Sciences, Health, and Physical Education areas.	¼, ½, or 1	

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13024	Botany/Horticultural Science I	9-12	<p>These courses prepare students to produce greenhouse/nursery plants and to maintain plant growth and propagation structures. Topics to be covered include: soils, plants, plant identification, and plant entomology. Courses examine the importance of plant cell structures, functions of cells, plant processes, nonvascular plants, vascular plants, roots, stems, leaves, flowers, and reproduction of plants. Students may be introduced to the biological, environmental, conservation, and ecological concepts encountered in our environment. Landscape design units will prepare students to design, construct, and maintain planted areas and devices for the beautification of home grounds and other areas of human habitation and recreation. These courses will reinforce and extend students' understanding of science by associating basic scientific principles and concepts with relevant applications in agriculture. Leadership development and supervised agricultural experience programs are also an integral part of this course.</p> <p>Note: <i>This course can be taught for Science credit only.</i></p>	½ or 1	License Code: 13010-Biology ♦ 7-12 or 9-12
13025	Botany/Horticultural Science II	9-12	<p>These courses prepare students to produce greenhouse/nursery plants and to maintain plant growth and propagation structures. Topics to be covered include: soils, plants, plant identification, and plant entomology. Courses examine the importance of plant cell structures, functions of cells, plant processes, nonvascular plants, vascular plants, roots, stems, leaves, flowers, and reproduction of plants. Students may be introduced to the biological, environmental, conservation, and ecological concepts encountered in our environment. Landscape design units will prepare students to design, construct, and maintain planted areas and devices for the beautification of home grounds and other areas of human habitation and recreation. These courses will reinforce and extend students' understanding of science by associating basic scientific principles and concepts with relevant applications in agriculture. Leadership development and supervised agricultural experience programs are also an integral part of this course.</p> <p>Note: <i>This course can be taught for Science credit only.</i></p>	½ or 1	

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13029	Advanced Biology ◆ Prerequisite: Biology 13020, Chemistry 13031, and appropriate mathematics	10-12	To provide detailed study of biology. A continuation of the topics studied in Biology 13020, but the laboratory work is more advanced, involves a greater precision, research, and teamwork. Use of a variety of references.	½ or 1	License Code: 13010-Biology ◆ 7-12 or 9-12
13030	Physical Science	9-12	Is a combination of the elementary fundamentals of chemistry and physics. It includes units on laboratory procedures, measurement, chemistry, heat, sound, light, and electricity.	½ or 1	License Code: 13045-Physical Science ◆ 7-12 or 9-12
13031	Chemistry	9-12	A study of the composition of substances, their properties, and their interactions.	½ or 1	License Code: 13020-Chemistry ◆ 7-12 or 9-12
13032	Advanced Chemistry ◆ Prerequisite: Chemistry 13031	10-12	To provide a more detailed study of chemistry. A continuation of the topics studied in Chemistry 13031 but the lab work should be more advanced.	½ or 1	
13034	Applied Biology/Chemistry	9-12	Applied Biology/Chemistry consists of twelve instructional units presenting the scientific fundamentals of biology and chemistry that provide a foundation for careers in: health careers, technology, agriculture/agribusiness, and home economics. This application-oriented, hands-on approach will assist the student to make the connection between abstract ideas and concrete experiences. With this fundamental basis in biology and chemistry the student will be better prepared to enter either chemistry courses, biology courses or vocational career options.	1 or 2	License Code: 13010-Biology ◆ 7-12 or 9-12 OR 13020-Chemistry ◆ 7-12 or 9-12
13036	Forensic Science ◆ Prerequisite: 13020 Biology, 13030 Physical Science, or Departmental Approval	11-12	Students will learn the methodology needed to evaluate a crime scene, the proper lab mechanics needed to evaluate evidence, and how to compare between a known and unknown. Topics may include the history of forensic science, collecting of evidence, analyzing results and hands-on application of many laboratory techniques used in solving crimes. Emphasis would be placed on the application of the scientific method to life-long skills and problem solving.	1/2	License Code: 13036-Forensic Science ◆ 11-12

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13042	Physics	9-12	The study of relationships between matter and energy.	1	License Code: 13050-Physics ◆ 7-12 or 9-12
13044	Applied Physics	11-12	To introduce students to mechanical, fluid, electrical, and thermal principles and systems on which modern equipment operates. Student activities examine the similarities of force, work, rate, resistance, energy, power, and force transformers in the mechanical, fluid, electrical, and thermal systems.	½ or 1	
13045	Principles of Technology	10-12	To introduce students to mechanical, fluid, electrical, and thermal principles and systems on which modern equipment operates. Student activities examine the similarities of force, work, rate, resistance, energy, power, and force transformers in the mechanical, fluid, electrical, and thermal systems. The labs require students to operate digital meters, power supplies, pumps, thermocouples, scales, and pulley systems.	1	
13061	Astronomy	9-12	To provide students with a detailed study of one area of earth science. A study of the solar system, stars, and universe. Practical and relevant applications.	¼ or ½	License Code: 13035-Earth Science ◆ 7-12 or 9-12
13062	Geology	9-12	To provide a detailed study of the history of the earth and its life as recorded in rock formations.	¼, ½, or 1	
13063	Earth Science (Secondary)	9-12	Astronomy, meteorology, geology, oceanography, ecology, and paleontology.	½ or 1	
13064	Meteorology	9-12	A study of weather, modification and forecasting; climate and atmospheric phenomena.	¼ or ½	
13065	Environmental Science ◆ Prerequisite: 13020 Biology, 13030 Physical Science, or Departmental Approval	11-12	Students will explore the Earth's natural systems, as well as how human activity affects the environment. Students will apply the scientific method to investigate natural flows of chemicals, water and energy through the Earth systems. Current environmental concerns such as soil forestry, wildlife, water conservation and other issues will be addressed. Students should gain skills to help them become a more active part of the environmental solution and obtain a deeper appreciation for their natural world.	1/2	License Code: 13025-Earth and Environmental Science ◆ 11-12
13074	Oceanography	9-12	To provide students with a detailed study of one area of earth science. A study of the ocean.	¼ or ½	License Code: 13035-Earth Science ◆ 7-12 or 9-12
13088	Aerospace	9-12	Flight and conditions affecting flight, may also include flight indoctrination and flight training, if conditions make this available. Basic concepts involved with airplanes and flight.	½ or 1	

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13110	Ecology	9-12	To provide an opportunity for students to increase awareness of the close ties between living organisms. Ecology concerns itself with the interrelationships of living organisms, and the environment.	¼, ½, or 1	License Code: 13010-Biology ◆ 7-12 or 9-12
13580	Advanced Placement Biology©	10-12	Advanced Placement Biology refers to a specific course developed and copyrighted© by the College Board. Teachers of this course receive special training to teach the curriculum.	½ or 1	
13581	Advanced Placement Chemistry©	10-12	Advanced Placement Chemistry refers to a specific course developed and copyrighted© by the College Board. Teachers of this course receive special training to teach the curriculum.	½ or 1	License Code: 13020-Chemistry ◆ 7-12 or 9-12
13582	Advanced Placement Environmental Science©	10-12	Advanced Placement Environmental Science refers to a specific course developed and copyrighted© by the College Board. Teachers of this course receive special training to teach the curriculum.	½ or 1	License Code: 13035-Earth Science ◆ 7-12 or 9-12
13583	Advanced Placement Physics B©	10-12	Advanced Placement Physics B refers to a specific course developed and copyrighted© by the College Board. Teachers of this course receive special training to teach the curriculum.	½ or 1	License Code: 13050-Physics ◆ 7-12 or 9-12
13584	Advanced Placement Physics C: Electricity and Magnetism©	10-12	Advanced Placement Physics C: Electricity and Magnetism refers to a specific course developed and copyrighted© by the College Board. Teachers of this course receive special training to teach the curriculum.	½ or 1	
13585	Advanced Placement Physics C: Mechanics©	10-12	Advanced Placement Physics C: Mechanics refers to a specific course developed and copyrighted© by the College Board. Teachers of this course receive special training to teach the curriculum.	½ or 1	

* High school curricular requirements are spelled out in NDCC 15.1-21-02. Accreditation Rules can be found at <http://www.legis.nd.gov/information/acdata/pdf/67-19-01.pdf>. For accreditation, schools must provide additional units of credit based on school enrollment [see NDAC 67-19-01-32 (3)].

** Please refer to the second page of the teacher's North Dakota Educator's Professional license to verify which subject areas a teacher is qualified to teach. Licenses and endorsements are obtained on a teaching license from the Education Standards and Practices Board (ESPB). Credentials are obtained from the Department of Public Instruction (DPI) and are issued to individuals holding a current teaching license.