

Secondary Teaching Physics

Courses required for the first year: CHEM-131, MATH-160, MATH-220, PHYS-211; PSYC-100; second language requirement
Courses recommended for the first year: Courses Designated with a PA, PP, PL, or G
Contact: Nathan Frank, Physics Advisor (nathanfrank@augustana.edu) or Education advisor Charlotte Shepherd, (charlotteshepherd@augustana.edu)*

* Students interested in this major are strongly encouraged to contact the Charlotte Shepard prior to registration for Spring Semester.

The Major in Teaching Physics

28 credits, including PHYS-211, PHYS-212, PHYS-213, PHYS-360, PHYS-366, and PHYS-368 and two of the following: PHYS-300, PHYS 339, PHYS-313. See the Director of Secondary Education for more details. 100-level courses do not count toward the major. Required supporting courses (40 credits): ASTR-145; BIOL-130 and BIOL-140; CHEM-131 and CHEM-132; GEOL-101 and GEOG-105; MATH-160, MATH-220, MATH-230, and MATH-260. Candidates can also earn licensure to teach science in grades 5-8 by completing the major in Middle Grades: Science.

Students may not also major in Physics or Engineering Physics

Students must take 2 of the three ** courses listed below

Required Courses

Course Number	Course Name	Learning Perspective	Prerequisites	Usually Offered: F, J, SP, SU*	Credits
PHYS-211	Foundational Physics I	PN	MATH-160 (or co-requisite)	SP	4
PHYS-212	Foundational Physics II	PN	MATH-260 (co-requisite)	F	4
PHYS-213	Foundational Physics III		PHYS-211 & MATH-260	SP	4
PHYS-366	Advanced Lab I		PHYS-213 and PHYS-200 (or permission of instructor)	F	2

PHYS-368	Advanced Lab II (SI)		PHYS-366	SP	2
PHYS-360	Classical Mechanics		PHYS-211, PHYS-212, MATH-260, MATH-320 (suggested) & MATH-350 (suggested)	SP	4
PHYS-300**	Optics		PHYS-212 & MATH-350 (suggested)		4
PHYS-313**	Thermodynamics		PHYS-211 & MATH-220	F	4
PHYS-339**	Electronics		PHYS-212	SP	4

Required Supporting Courses

Course Number	Course Name	Learning Perspective	Prerequisites	Usually Offered: F, J, SP, SU*	Credits
ASTR-145	Stars and Galaxies	PN		SP	4
BIOL-130	Molecules to Cells			F/SP	4
BIOL-140	Organisms to Ecosystems			F/SP	4
CHEM-131	General Chemistry I	PN		F/SP	4
CHEM-132	General Chemistry II		CHEM-131	SP	4
GEOL-101	Physical Geology	PN		F/J/SP/SU	4
GEOG-105	Weather, Climate, and Society	PN			4
MATH-160	Calculus			F/SP	4
MATH-220	Integration Methods		MATH-160	F/SP	2
MATH-230	Infinite Series		MATH-160	F/SP	2
MATH-260	Multivariable Calculus		MATH-160	F	4

Education Professional Sequence (Required)

Course Number	Course Name	Learning Perspective	Prerequisites	Usually Offered: F, J, SP, SU*	Credits
EDUC-301	Educational Psychology and Assessment			F/SP	4
EDUC-310	Computers in Education		EDUC-301; Retention in Teacher Education	SP	1
EDUC-340	Methods of Inclusion	D	EDUC-301; Retention in Teacher Education	F/SP	4
EDUC-370	General Methods		EDUC-301; Retention in Teacher Education	F	4
EDUC-386	Methods 5-8 Science		EDUC-301; Retention in Teacher Education	SP	4
EDUC-396	Clinical Experience 5-8		EDUC-301 and EDUC-340; Retention in Teacher Education	F/SP	1
EDUC-397	Clinical Experience 9-12		EDUC-301 and EDUC-340; Retention in Teacher Education	F/SP	1
EDUC-412	Methods of Literacy: 5-12		EDUC-301; Retention in Teacher Education	F	4
INTR-ED A90	Student Teaching	PH	EDUC-396 and EDUC-397; Retention in Teacher Education	F/SP	10
EDUC-422	Clinical Seminar	PH	Co-requisite: Student Teaching and EDUC-450	F/SP	1
EDUC-450	School and Society	PH	Co-requisite: Student Teaching and EDUC-422	F/SP	2

Major Overview

This major is required for teaching licensure in Illinois in grades 9-12. Students completing this major along with all other licensure requirements are eligible for high school teaching positions in science (Biology, Chemistry, and Physics) in Illinois. Students who complete this major will have met most requirements for licensure to teach science in grades 5-8.

*Fall, J term, Spring, Summer; see [Academic Calendar](#) for specific dates

Updated May 2025