

Physics Degrees with Certification

BA or BS, Physics Major with Certification - Min. 124 Hours

Common Core: [See common core requirements.](#)

Required Course from General Education: CH111 General Chemistry (3) and CH111L (1) or CH114 General Chemistry with Qualitative Analysis (3) and CH114L (1); and MA118 Calculus and Analytic Geometry I (5)

Tier Two: Additional General Education Requirements (24+ Hours)

Humanities or Fine Arts:	• 9 hours (BA)	• 6 hours (BS)
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When choosing a Humanities course, [see guidelines.](#)

When choosing a Fine Arts course, [see guidelines.](#)

Social Sciences (PY210 or PY223): see guidelines.	• 6 hours (BA)	• 6 hours (BS)
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Science: Must include BI101 General Biology (3) and BI101L (1) or BI108 Biodiversity (3) and BI108L (1)	3-4 hours
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BA Foreign Language (a single language)	6-8 hours
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BS Analytical Skills: [see guidelines.](#)

Must include ED122 Education Technology (2) and MA209 Calc and Analytic Geometry II (5)

Physics Major Requirements (31 Hours)

PH205 Calculus Physics I (3) and PH205L (2)

PH206 Calculus Physics II (3) and PH206L (2)

PH307 Modern Physics (3)

PH322 Scientific Instrumentation (3) and PH322L (1)

CH354 Thermodynamics (3) and CH354L (1) or CH355 Quantum Mechanics and Solid State Physics (3) and CH355L (1)

SC225 Science Seminar (1)

SC382 History and Philosophy of Science (3)

Additional Hours in Science Including:

SC103 Meteorology (3) or 100-level
Geology (4)

BI301 Ecology (3) and BI301L (1)
or BI311 Conservation Biology and
Natural Resource Management (3) or
BI105 Intro to Environmental Science
(3) and BI105L (1)

Professional Education Requirements (42+ Hours)

ED101 Foundations of Education (2)	ED462 Supervised Student Teaching (Capstone) (10)
ED102 Field Experience I (1)	
ED105 Field Experience II (0-1)	ED470 Instruction Int. For Students with Reading Deficits (3)
ED122 Education Technology (2) if not taken in Tier Two above	ED471 Teaching Reading in the Content Area (3)
ED313 Classroom Behavior Management (3)	PY210 Educational Psychology (3)
ED350 Education Methodology (2)	PY223 Developmental Psychology (3)
ED370SC The Teaching of Science in High School (3)	PY342 Psychology of the Exceptional Child (2)
ED453 Education as a Profession (2)	PY343 Psychology of the Exceptional Child Practicum (1)
ED454 Student Teaching Seminar (2)	

Electives (To Complete Min. 124 Hours)

BA or BS in Physics with Certification in Unified Science

Common Core: [See Common Core requirements](#)

Required Courses from General Education:

BI101 General Biology (3) and BI101L (1)

MA118 Calculus and Analytic Geometry I (5). Any student whose ACT Math subscore is below 20 must pass MA101/MA102 before taking MA118.)

Tier Two: Additional General Education Requirements (21-24 Hours)

Humanities or Fine Arts:	9 hours (BA)	6 hours (BS)
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When choosing a Humanities
course, [see guidelines](#).

When choosing a Fine Arts
course, [see guidelines](#).

Social Sciences (PY210 and PY223): See guidelines .	6 hours (BA)	6 hours (BS)
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Science: BI102 General Biology (3) and BI102L (1)	4 hours	
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BA Foreign Language (a single language)	6-8 hours	
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BS Analytical Skills: [See guidelines.](#)

Must take ED122 Education Technology (2) and MA209 Calculus and Analytical Geometry II (5)

Unified Science Course Requirements (43 hours)

CH111 General Chemistry (3) and CH111 (1)	PH354 Thermodynamics & Physical Chemistry (3) and PH354L (1)
CH114 General Chemistry with Quantative Analysis (3) and CHL114L (1)	PH355 Quantum Mechanics and Solid State Physics (3) and PH355L (1)
GL105 Exploring Geology (4)	ES306 Environmental Health and Safety (3)
PH205 Calculus Physics I (3) and PH205L (2)	One (1) from the following:
PH206 Calculus Physics II (3) and PH206L (2)	BI105 Introduction to Environmental Science (3) and BI105L(1)
PH307 Modern Physics (3)	
PH322 Scientific Instrumentation (3) and PH322L (1)	BI301 Ecology (3) and BI301L (1)
SC103 Introduction to Meteorology (3)	BI311 Conservation and Natural Resource Management (3)
SC225 Interdisciplinary Science Seminar (1)	
SC382 History & Philosophy of Science (3)	

Professional Education Requirements (42 Hours)

ED101 Foundations of Education (2)	ED470 Instructional Int. for Students with Reading Deficits (3)
ED102 Field Experience I (1)	
ED105 Field Experience II (0-1)	ED471 Teaching Reading in the Content Area (3)
ED122 Education Technology (2)	PY210 Educational Psychology (3)
[if not taken in Tier Two]	PY223 Developmental Psychology (3)
ED350 Education Methodology (2)	PY342 Psychology of the Exceptional Child (2)
ED370SC The Teaching of Science in High School (3)	PY343 Psychology of the Exceptional Child Practicum (1)
ED453 Education as a Profession (2)	
ED454 Student Teaching Seminar/Methods (2)	

ED462 Supervised Student
Teaching (Capstone) (10)

Electives
