

PHYSICS, BACHELOR OF SCIENCE

Offered by Department of Physics and Astronomy (<https://catalog.unk.edu/undergraduate/departments-programs/physics-astronomy/>)

Code	Title	Credit Hours
General Studies		
<i>Foundational Requirements (LOPERs 1-4)</i>		14
Including:		
LOPER 4: Mathematics, Statistics, and Quantitative Reasoning		
MATH 115	Calculus I with Analytic Geometry ¹	
<i>Broad Knowledge Requirements (LOPERs 5-8)</i>		11
Take any one course in LOPER 5, LOPER 6, or LOPER 7 that satisfies a Dispositional Requirement (LOPER 9 or LOPER 10) and a Broad Knowledge Requirement. The courses that meet these criteria are listed at https://catalog.unk.edu/undergraduate/general-studies/courses-satisfy-broad-knowledge-dispositional (https://catalog.unk.edu/undergraduate/general-studies/courses-satisfy-broad-knowledge-dispositional/). See advisor for assistance.		
LOPER 8: Natural Science		
PHYS 275	General Physics I (Calculus)	
PHYS 275L	General Physics I (Calculus) Laboratory	
<i>Dispositional Requirements (LOPERs 9-10) ²</i>		6
<i>Wellness (LOPER 11) Optional</i>		0
BS Science-related course requirements		8
MATH 202	Calculus II with Analytic Geometry	
MATH 305	Differential Equations	
Program Specified Requirements		5
PHYS 276	General Physics II (Calculus)	
PHYS 276L	General Physics II (Calculus) Laboratory	
Major Option		
Complete all required courses		36
Minor or 2nd Major		
Complete all required courses ³		24
Unrestricted Electives		
Needed to reach 120 credit hour minimum		16
Total Credit Hours		120

Major Option

Code	Title	Credit Hours
Physics Requirements		
PHYS 123	Freshman Physics Seminar	3
PHYS 346	Modern Physics I	4
PHYS 410	Mathematical Techniques in Physics I	3
PHYS 420	Advanced Physics Laboratory	3
Physics Electives		
Select 14 credit hours from the following:		14

PHYS 402	Analytic Mechanics	
PHYS 407	Electricity & Magnetism	
PHYS 419	Quantum Mechanics	
PHYS 430	Optics	
PHYS 435	Solid State Physics	
PHYS 440	Thermodynamics and Statistical Mechanics	
PHYS 495	Research in Physics	
Physics Math Requirements		
MATH 260	Calculus III	5
Physics Chemistry Requirements		
CHEM 160	General Chemistry	3
CHEM 160L	General Chemistry Laboratory	1
Total Credit Hours		36

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Students without sufficient preparation will also need to take the following courses, increasing the total credit hours needed:

- MATH 102
- MATH 103

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Designated courses with the appropriate content approved to satisfy one of the Broad Knowledge requirements plus LOPER 9 or a Broad Knowledge requirement plus LOPER 10. Some courses approved satisfy LOPER 9 or LOPER 10 alone. Choosing a course that satisfies the Broad Knowledge requirement **AND** LOPER 9 or the Broad Knowledge Requirement **AND** LOPER 10 will reduce the total general studies hours.

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A minor or second major is required for a complete degree program.

The number of required electives needed to reach 120 total credit hours overall will depend upon the specific program chosen