

# Minor in Physics

24 units

The physics minor is ideal for students majoring in mathematics, engineering, computer science, chemistry, or biology.

## Requirements

Code	Title	Units
<b>Core Courses</b>		
PHYC 145	Physics Laboratory I <sup>1</sup>	1
PHYC 146	Physics Laboratory II	1
PHYC 147	Physics Laboratory III	1
PHYC 165	Physics for Science and Engineering: Mechanics <sup>1</sup>	4
PHYC 166	Physics for Science and Engineering: Electricity and Magnetism	4
PHYC 167	Physics for Science and Engineering: Relativity	1
PHYC 168	Physics for Science and Engineering: Waves and Thermodynamics	3
MATH 268	Multivariable Calculus	3
Select three of the following:		6
PHYC 361	Electricity and Magnetism <sup>ES</sup>	
PHYC 370	Waves and Optics <sup>EF</sup>	
PHYC 380	Classical Mechanics <sup>OF</sup>	
PHYC 401	Thermodynamics <sup>ES</sup>	
PHYC 431	Computational Methods for Physics <sup>EF</sup>	
PHYC 440	Quantum Mechanics <sup>OS</sup>	
<b>Total Units</b>		<b>24</b>

<sup>1</sup> Meets the General Education Natural Sciences requirement.

F	Offered in Fall only
S	Offered in Spring only
F/S	Offered in both Fall and Spring terms
EF	Offered in Fall in even years
ES	Offered in Spring in even years
OF	Offered in Fall in odd years
OS	Offered in Spring in odd years

## Program Learning Outcomes

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Students who successfully complete this program shall be able to:

1. Use mathematical methods of solve quantitative physics problems
2. Use qualitative reasoning to explain physics phenomena
3. Draw conclusions from experimental data with measurement uncertainty
4. Use laboratory apparatus to conduct experiments and collect data
5. Analyze features of physical models (e.g. by approximation methods, computational methods, etc.)
6. Reconcile scientific and biblical worldviews