

PHYSICS MINOR

General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (<https://catalog.umt.edu/academics/general-education-requirements/>) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (<https://catalog.umt.edu/academics/graduation-requirements/>).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (<https://catalog.umt.edu/academics/policies-procedures/>) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

Minor - Physics

- The mathematics prerequisites for courses in the Minor in Physics include M 171, M 172, M 273, and M 221.

Course Requirements

| Code | Title | Hours |
|--|---|-------|
| Required Lower-Division Courses | | |
| Complete one of the following Physics sequences: | | 10 |
| Algebra- and Trigonometry-based Physics: | | |
| PHSX 205N & PHSX 206N | College Physics I and College Physics I Laboratory | |
| PHSX 207N & PHSX 208N | College Physics II and College Physics II Laboratory | |
| Calculus-based Physics (strongly recommended): | | |
| PHSX 215N & PHSX 216N | Fundamentals of Physics with Calculus I and Physics Laboratory I with Calculus | |
| PHSX 217N & PHSX 218N | Fundamentals of Physics with Calculus II and Physics Laboratory II with Calculus | |
| Upper-Division Core Course | | |
| Complete the following course: | | |
| PHSX 301 | Intro to Theoretical Physics | 3 |
| Electives | | |
| Complete 11 credits of the following courses, 8 of which must be upper-division: | | 11 |
| PHSX 141N | Einstein's Relativity | |
| PHSX 291 | Special Topics | |
| PHSX 311 | Oscillations and Waves | |
| PHSX 320 | Classical Mechanics | |
| PHSX 323 | Intermediate Physics Lab | |
| PHSX 327 | Optics | |
| PHSX 330 | Communicating Physics | |
| PHSX 333 | Computational Physics | |
| PHSX 343 | Modern Physics | |

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| PHSX 423 | Electricity & Magnetism I |
| PHSX 444 | Advanced Physics Lab |
| PHSX 446 | Thermodynamics & Statistical Mechanics |
| PHSX 461 | Quantum Mechanics I |
| PHSX 462 | Quantum Mechanics II |
| Total Hours | 24 |