M.S. in Physics

The Department of Physics grants the Master of Science Degree under two options: Plan-A (thesis required), and Plan-B (without thesis).

**Plan-A Requirements**

**Coursework**
- PHSX 594 Seminar (01 - Teaching Seminar) 1
- PHSX 594 Seminar (15 - Research Introduction Seminar) 1
- PHSX 501 Advanced Classical Mechanics 3
- PHSX 506 Quantum Mechanics I 3
- PHSX 519 Electromagnetic Theory I 3
- PHSX 566 Mathematical Physics I 3

**Electives (see electives)** 6

**Thesis**
- PHSX 590 Master’s Thesis (An acceptable thesis and at least 10 credits of this course are required) 10

**Examination**
A written comprehensive examination is required. A final oral examination is also required, covering the thesis and related areas.

**Total Credits** 30

**Plan-B Requirements**

**Coursework**
A minimum of 30 credits of acceptable course work is required, which shall be distributed as follows:
- PHSX 594 Seminar (01 - Teaching Seminar) 1
- PHSX 594 Seminar (15 - Research Introduction Seminar) 1
- PHSX 501 Advanced Classical Mechanics 3
- PHSX 506 Quantum Mechanics I & PHSX 507 and Quantum Mechanics II 6
- PHSX 519 Electromagnetic Theory I & PHSX 520 and Electromagnetic Theory II 6
- PHSX 566 Mathematical Physics I 3

**Electives (see electives)** 10

**Thesis**
None Required

**Examinations**
A written comprehensive examination is required

**Total Credits** 30

**Comprehensive Examination**
- A student attempting to obtain the M.S. degree is allowed two attempts to pass this written examination at the M.S. Comprehensive level.
- A student who has passed the Ph.D. written Comprehensive Examination will be deemed to have passed the M.S. Comprehensive Examination.
- Details concerning the physics Comprehensive Examination and dates of exam can be found at [http://www.physics.montana.edu/](http://www.physics.montana.edu/)

Details on Physics graduate programs, application process, and degree requirements can be found at: Physics Graduate Program Overview ([http://www.physics.montana.edu/grad/](http://www.physics.montana.edu/grad/))

Examinations: Qualifying and Comprehensive Examinations are required. A Final oral defense of the thesis is also required for plan A. For details, see the Physics graduate manual that is accessible from the Physics Department Home page [https://physics.montana.edu/](https://physics.montana.edu/).