

PHYSICS - MASTER OF SCIENCE

The Master's degree requires that students either pass the qualifying examination at the Master's level or identify a research advisor during the first semester of study, form a Graduate Committee, and write a thesis. For the master's degree, students must also successfully complete or transfer at least 30 course credits and pass a final oral examination or the doctoral comprehensive examination. Of these 30 credits, at least 21 must be in physics, at most 3 may be for individual study or other informal courses, at most 6 may be for a thesis, and at most 9 may be numbered between 450 and 499. Students must successfully complete

Prefix	Title	Credits
PHYS 576	Advanced Computational Physics I	3
or PHYS 476	Computational Physics	
Select 3 credits from the following:		3
PHYS 571	Advanced Experimental Optics	
PHYS 575	Advanced Physics Laboratory	
PHYS 593	Advanced Experimental Nuclear Physics	

A Master's thesis is optional for students who have passed the qualifying examination. PHYS 599 Master's Thesis credits will not count toward the 21 credits in physics and can only be counted toward the 30 credits for a Master's degree if a student selects the thesis option and successfully defends a Master's thesis. PHYS 700 Doctoral Dissertation credits can be used as a substitute for PHYS 599 Master's Thesis credits.

New Mexico State University master's accelerated program provides **the opportunity for academically qualified undergraduate students** to begin working on a master's degree **during their junior and senior years** while completing a bachelor's degree. Typically, a bachelor's degree requires four years to complete, and a master's degree requires an additional two years. The master's accelerated programs allow students the opportunity to complete a graduate program in an accelerated manner.

Students enrolled in the master's accelerated program are allowed to apply up to nine credits of their undergraduate courses numbered 450 and above and up to twelve credits total towards the completion of a master's degree. This program provides students with an opportunity to complete a master's degree in one year (and perhaps one summer term to write and defend a master's thesis). Students wishing to enroll in the master's accelerated program should talk to their Physics or Engineering Physics faculty advisor and develop a course plan in consultation with the advisor.

MAP Requirements

- The Graduate School allows qualified junior or senior students to substitute its graduate courses for required or elective courses in an undergraduate degree program and then subsequently count those same course as fulfilling graduate requirements in a related graduate program.
- Undergraduate students may apply for acceptance to the accelerated master's program after completing 60 semester hours of undergraduate coursework of which a minimum of 25 semester credit hours must be completed at NMSU.
- The grade point average must be at a minimum of 2.75.

- Students must receive a grade of B or higher in this coursework to be counted for graduate credit. If a grade of B- or lower is earned, it will not count toward the graduate degree.

Accepted MAP Courses

The following courses are accepted for use in the MAP program, any other courses may be considered after a consultation with a Physics or Engineering Physics faculty advisor. An exception will need to be made to the degree audit in order for the additional course(s) to be included on both the Undergraduate and Graduate degrees.

Prefix	Title	Credits
PHYS 451	Intermediate Mechanics I	3
PHYS 454	Intermediate Modern Physics I	3
PHYS 455	Intermediate Modern Physics II	3
PHYS 461	Intermediate Electricity and Magnetism I	3
PHYS 462	Intermediate Electricity and Magnetism II	3
PHYS 480	Thermodynamics	3
PHYS 488	Introduction to Condensed Matter Physics	3
PHYS 450	Selected Topics	1-3
or PHYS 520	Selected Topics	
PHYS 468	Intermediate X-ray Diffraction	3
or PHYS 568	Elements of X-ray Diffraction	
PHYS 471	Modern Experimental Optics	3
or PHYS 571	Advanced Experimental Optics	
PHYS 475	Advanced Laboratory Practices for Materials	3
or PHYS 575	Advanced Physics Laboratory	
PHYS 476	Computational Physics	3
or PHYS 576	Advanced Computational Physics I	
PHYS 489	Introduction to Modern Materials	3
or PHYS 589	Modern Materials	
PHYS 493	Experimental Nuclear Physics	3
or PHYS 593	Advanced Experimental Nuclear Physics	
PHYS 495	Mathematical Methods of Physics I	3
or PHYS 511	Mathematical Methods of Physics I	