

# PHYSICS (M.A.)

For some students, the master's degree will be used as part of a continuing Ph.D. program; for others, it will be a terminal degree leading to employment in government laboratories, industrial programs, hospitals, teaching positions, and other occupations. The Master of Arts with a major in Physics is offered under Plan B, as described on the next tab.

## Admission Requirements

Admission to this program is contingent upon admission to the Graduate School (<http://bulletins.wayne.edu/graduate/general-information/admission/>). In addition, applicants must satisfy the following criteria.

## Prerequisite Preparation

Prerequisite preparation should include:

Code	Title	Credits
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A minimum of general college physics with laboratory equivalent to:

PHY 2170	University Physics I for Scientists and Engineers
PHY 2180	University Physics II for Scientists and Engineers
PHY 3300	Introductory Modern Physics

Fifteen credits in intermediate physics courses, for example, those equivalent to the following:

PHY 5100	Methods of Theoretical Physics I
PHY 5200	Classical Mechanics I
PHY 5210	Classical Mechanics II
PHY 5340	Optics
PHY 6400	Quantum Physics I
PHY 6410	Quantum Physics II
PHY 6500	Thermodynamics and Statistical Physics
PHY 6600	Electromagnetic Fields I
PHY 6610	Electromagnetic Fields II
PHY 6850	Modern Physics Laboratory

Mathematics equivalent to mathematics prerequisites required in those physics courses

A minimum of general college chemistry with laboratory equivalent to:

CHM 1100 & CHM 1130	General Chemistry I and General Chemistry I Laboratory
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The Graduate Record Examination, both the General section and the Physics subject test, is strongly recommended as a counseling aid in preparing the student's plan of study.

## Program Requirements

The Master of Arts degree is offered by this Department only under the following option:

**Plan B:** *Twenty-nine credits in course work plus a three-credit essay.*

1. The following physics courses or their equivalents must be completed or must have been completed previously at the undergraduate level.

Code	Title	Credits
PHY 5100	Methods of Theoretical Physics I	3
PHY 5210	Classical Mechanics II	3
PHY 6400	Quantum Physics I	4
PHY 6410	Quantum Physics II	3
PHY 6500	Thermodynamics and Statistical Physics	4

PHY 6600	Electromagnetic Fields I	4
PHY 6610	Electromagnetic Fields II	3

2. Mathematics equivalent to mathematics prerequisites required for the course work listed above.
3. At least nine credits of coursework in physics at the 7000-level or above (exclusive of PHY 7990, PHY 7996, PHY 7999, PHY 8995, PHY 8999).
4. PHY 7999 Master's Essay Direction.
5. A departmental final oral examination is required of all candidates.