

EARNING A MINOR IN PHYSICS

Students in any field can benefit from earning a minor in physics. A solid background in science is a requirement for full literacy in our increasingly technological world. Especially for students in a scientific or technical major, a more in-depth knowledge of the basic physics behind the principles of engineering and chemistry can be of use in any future career, as well as in graduate study in these areas.

A student studying for a degree in engineering or chemistry can earn a minor in physics with a relatively small number of extra physics credits. For engineering students, as few as 12 extra credits in physics are required, while for chemistry students only 9 extra credits in physics are required.

A minor in physics consists of 18 credits of physics courses, including 9 upper division credits. Many of these courses are already required of engineering and chemistry majors. A grade of C or better is required in these courses. (Labs are recommended but not required for the minor.)

- PHYS 213 or PHYS 215 (Mechanics)
- PHYS 214 or PHYS 216 (Electricity and Magnetism)
- PHYS 217 (Heat, Light, and Sound)
- PHYS 315 (Modern Physics) or PHYS 325 (Electronic Materials and Devices)
- 6 additional credits of Upper-division courses, not including PHYS 350, 400, 450 or any General Education courses. Certain choices of these 6 credits correspond to one of the designated minors in physics, described below.

DESIGNATED MINORS IN PHYSICS

Each of the designated minors has specific area of concentration, reflected in the 6 additional credits of upper division physics courses:

- Classical Mechanics: PHYS 451 (Intermediate Mechanics) and PHYS 480 (Thermodynamics)
- Computational Physics: PHYS 476 (Computational Physics) and PHYS 495 (Mathematical Methods I)
- Electromagnetics: PHYS 461 and 462 (Intermediate Electricity and Magnetism I and II)
- Materials: PHYS 488 (Condensed Matter Physics) and 489 (Introduction to Modern Materials)
- Optics: PHYS 370 and 470 (Optics I and II)
- Quantum Mechanics: PHYS 454 and 455 (Intermediate Modern Physics I and II)

The choice of designated minor is based solely upon the interests of the individual student. For example a mechanical engineering student might be interested in Classical Mechanics, while a chemistry student might desire to pursue Quantum Mechanics.

The Physics Undergraduate Advisor is Dr. Stephen Pate (Gardiner 356, pate@nmsu.edu), and the Engineering Physics Undergraduate Advisor is Dr. Thomas Hearn (Gardiner 352B, thearn@nmsu.edu). Both advisors are more than capable in helping you decide the appropriate courses to take.

CERTIFICATION OF COMPLETION OF A MINOR IN PHYSICS

Student: _____

Student ID: _____

College: _____

Major: _____

PHYSICS COURSES TAKEN:	NUMBER	CREDIT	GRADE
PHYS 213 or 215	_____	_____	_____
PHYS 214 or 216	_____	_____	_____
PHYS 217	_____	_____	_____
PHYS 315 or 325	_____	_____	_____
Upper-division Physics	_____	_____	_____
Upper-division Physics	_____	_____	_____

Total Credits: _____

Title of Designated Minor (if applicable) _____

Advisor: _____

Date _____

Department Head: _____

Date _____

(Note: Physics majors may *not* earn the regular physics minor or any of the designated minors.)