

# ANDREWS PHYSICS FAQ

## Scheduling a Physics Minor

### What will a Physics Minor do for me?

Taking a Physics Minor will develop your ability to do logical analysis and thus make you more able to solve problems in a great many areas, making you particularly attractive in the non-science disciplines which nonetheless benefit from mathematical methods and basic logic.

### How hard is it to do a Physics Minor?

A Physics Minor requires only 20 credit hours of physics courses. You are halfway towards a minor once you complete the required Physics for Scientists sequence. **Chemistry** and **Biochemistry** majors already take Calculus I,II (MATH141,142), and must take either General Physics (PHYS141, 142) or Physics for Scientists (PHYS241,271/242,272). To complete a Physics Minor, they will need to take the Physics for Scientists option plus another 10 units of physics. **Biology** majors already take either General Physics (PHYS141,142) or Physics for Scientists (PHYS241,271,242,272). To complete a Physics Minor, they will need to take Calculus I, II (MATH141,142) and take the Physics for Scientists option plus another 10 units of physics. **Math** majors already take Calculus I, II (MATH141,142). To complete a Physics Minor, they will need to take Physics for Scientists (PHYS241,271,242,272) plus another 10 units of physics.

### Can I get a minor if I have already taken *General Physics (Trig-based)* rather than *Physics for Scientists (Calculus-based)*?

Students who have completed General Physics are encouraged to petition for a variance from the *Physics for Scientists* requirement. In such cases, specific physics courses may be required for the remaining credits.

### Are there any physics courses which cannot be applied towards a Physics Minor?

Astronomy PHYS110, Concepts of Physics PHYS115, and Acoustics PHYS405 are taught at a general education level and are not eligible for application towards a Physics Minor.

### What would a typical course of study for a Physics Minor look like?

10	Physics for Scientists w/lab	PHYS241,271,242,272
2.5	Theoretical Mechanics I	PHYS411

In addition, at least 7.5 units selected from the following list:

2.5	Optics	PHYS350
2.5	Theoretical Mechanics II	PHYS412
2.5	Biophysics	PHYS416
2.5	Thermodynamics	PHYS430
3	Electricity and Magnetism I	PHYS431
3	Quantum Physics I	PHYS481
1-2	Advanced Lab	PHYS377, 477
1-3	Research	PHYS495

### I am not taking one of the majors listed above. What will I need to do to receive a Physics Minor?

You will need to take Calculus I, II (MATH141,142), Physics for Scientists (PHYS241,271,242,272), plus another 10 units of physics.

### I have already taken General Physics. Do I need to take Physics for Scientists as well?

No. If you decide to take a Physics Minor while taking General Physics, we will accept it as applying toward the minor. Besides General Physics, you will need to take Calculus I, II (MATH141,142) plus another 12 units of physics. However, we do not advise our minors to take General Physics, because Physics for Scientists provides a better foundation for our upper division courses.