

## Choosing the right physics course for your first semester

Are you thinking of majoring in one of the sciences? If so, then you will very likely take introductory physics while you are at Trinity. The Physics Department offers two levels of introductory physics, and it's important that you choose the right set of courses to go with your interests and with your major. *In particular it is important that students considering majoring in physics or engineering take Phys-141 in the fall semester of their first year.*

### Who should take Phys-101?

Physics-101 *Principles of Physics I* is the first of a two-semester algebra-based physics sequence most often taken by students who major in biology, environmental science, or who intend to become a health professional. Majoring in any of the other sciences? Then you should *not* take Phys-101. If Phys-101 is appropriate for you and you are also strong in math, you might want to consider taking Phys-141 instead. Phys-101 is offered every fall, and it is not necessary that you take this course in your first year.

### Who should take Phys-141?

Physics-141 *Mechanics* is a calculus-based physics course required for students majoring in physics, engineering, chemistry, and biochemistry. It is the first in a set of three foundational physics courses that provide a framework for all of the physical sciences, and are prerequisites for other courses both in physics and in engineering. Phys-141 is a collaborative, inquiry-based class with an integrated lab. If you're taking this class you can expect to spend most of your time thinking, explaining, discussing, and doing, rather than taking notes. ***If you are considering majoring in either physics or engineering then you should take Phys-141 in the fall semester of your first year.*** If you are planning to be a chemistry or biochemistry major, taking Phys-141 in the first semester will open up opportunities for you to take relevant upper-level physics courses later on.

### What about calculus?

As an incoming student you will be placed into the appropriate math level based on your score on the online Trinity math placement exam.

*Math-131 Calculus I* is a co-requisite for Phys-141. This means that in order to take Phys-141 you must either

- be placed into Math-131 and take it in the same semester as Phys-141,
- be placed out of Math-131 into a higher level of calculus (such as Math-132 or 231), or
- have received credit for a calculus AP exam that exempts you from Math-131

If you have been placed into Math-127 instead of calculus then you will **not** be able to take Phys-141 this semester. If you have not yet taken the math placement exam then you may be able to enroll in Phys-141 on a provisional basis, but must meet one of the requirements above by the start of classes in order to remain enrolled.

### What about AP physics credit?

If you earned a grade of 4 or 5 on the *AP-C Mechanics* exam then you will be granted course credit for Phys-141 and may take Phys-231 *Electricity & Magnetism* in the spring. However you may choose to enroll in Phys-141 anyway, and forgo AP credit.

If you have placed out of both Phys-141 AND Math-131, then you may want to consider starting with Phys-232 *Optics and Modern Physics* in the fall, followed by Phys-231 in the spring. Math-132 Calculus II is a co-requisite for Phys-232.

### Contact us

If you have **any** questions about introductory physics, other physics courses, physics placement, or the physics major, please don't hesitate to get in touch with the department chairperson or anyone else on the physics faculty. You'll find a full listing of department members on the physics department website: <https://www.trincoll.edu/physics/>