

Transferring Physics Courses to UR (updated 5/2022)

The University Registrar handles the process of transferring courses taken elsewhere for credit at UR. Students should consult the [Registrar's website](#) for an up-to-date set of general rules and forms. Electronic forms (only accessible from on campus or [via VPN](#)) are at the following links:

- [For courses at U.S. institutions](#) (click on "Transfer Work Approval Online Form")
- [For courses abroad](#) (general information page; click on "Course Approval Form" at left)

Once you submit an approval form to the Registrar, it gets routed to the Physics Department Chair, who determines whether a physics course can be counted as an equivalent course at UR, and whether it can fulfill major/minor or field-of study requirements.

The Physics Department has established specific guidelines for course equivalencies which are stated below. To avoid unpleasant transfer rejections after having already paid for or taken a course, it is **highly recommended** that students obtain approval for courses that will be taken elsewhere before enrolling. As of Spring 2022, **the department will not approve transfer requests for courses taken online.**

A note on course names:

Unfortunately, there is no universal naming convention for physics courses. "General Physics" may or may not indicate a calculus-based course. "College Physics" is often equivalent to UR's PHYS 127/8, and "University Physics" is often equivalent to UR's 131/2, but not always. Feel free to [contact the chair of the physics department](#) if you have questions about which physics course is equivalent to what—or just submit a transfer approval form to the registrar's office and see what happens. 😊

PHYS 131 and 132 (Calculus-based General Physics with Lab)

In order for a course to be approved for transfer credit as PHYS 131/2, it must be in-person (not online) and must include an in-person lab. The in-class and in-lab time must be roughly equivalent to UR's PHYS 131 and 132, and the material covered must be mostly the same:

- **PHYS 131:** Kinematics (velocity & acceleration) in 1D and 2D, Newton's laws, momentum, energy, rotational motion, and oscillations.
- **PHYS 132:** Electric and magnetic fields, electric potential, DC circuits, electric induction, mechanical waves, electromagnetic waves, and physical optics (diffraction and interference).

In addition, the course must be calculus-based. Calculus-based courses typically require at least Calculus 1 as a pre-requisite or co-requisite.

PHYS 127 and 128 (Algebra-based General Physics with Lab)

Introductory physics courses that do not require calculus will be transferred in as PHYS 127/8 rather than PHYS 131/2. These courses must also be taught in-person (not online) and must include an in-person lab. The in-class and in-lab time must be roughly equivalent to that spent in UR's PHYS 131/2, and must cover mostly the same material as 131/2 (listed above).

PHYS 121, 123, and 125 (Astronomy, Renewable Energy, and Elements of Physics)

These courses do not count towards a major or minor, but do fulfill the Gen-Ed field-of-study requirement for the natural sciences (FSNS). In order for a physics course to satisfy FSNS, it must be taught 100% in-person (not online) and must include an in-person lab. It is possible for other courses to meet the FSNS requirement even if they cover different material than PHYS 121/3/5.

200-level and 300-level physics courses

Intermediate and advanced courses are evaluated on a case-by-case basis.