

PHYSICS 111 (Mechanics)

General Information:

PHYS 111 is an “enriched” version of PHYS 101, intended for students who are particularly well-prepared and well-motivated. It covers the same material in somewhat greater depth, with a few brief excursions into more advanced topics.

It is offered at the same time as PHYS 101 (MWF 9:00 - 9:50 am in HZ 212). It uses the same textbook as PHYS 101. Thus, it will be easy to transfer from this course back to PHYS 101. We intend to allow students to make such a transfer, without penalty, up to the fifth week of the semester.

Students can earn credit for either PHYS 101 or PHYS 111, but not both. A second-semester course, PHYS 112, is also offered as an “enriched” version of PHYS 102. Students can earn credit for either PHYS 102 or PHYS 112, but not both. Any combination --- 111 & 112, or 111 & 102, or 101 & 112 --- is equivalent to 101 & 102.

Who should take PHYS 111?

Students who already have AP credit (C test) for PHYS 101 and 102, and who decide not to go straight to PHYS 201, should consider taking PHYS 111. Students without AP credit, but with a very strong high-school background in physics and mathematics, also should consider taking PHYS 111 in place of PHYS 101, especially if they intend to pursue a major in physics or a closely related field. However, it is *not* in any way obligatory for prospective physics majors to take 111 rather than 101. Indeed, prospective physics majors whose high-school preparation is not strong may be better advised to take 101.

Preparation in mathematics is an important criterion. It will be assumed in PHYS 111 that you already have a good grasp of differential and integral calculus (first year calculus, equivalent to MATH 101 and 102).

Why take 111 rather than 101?

PHYS 111 is intended for well-prepared, highly-motivated students who would like a more theoretical, mathematical presentation than is usually given in PHYS 101. The pace will be somewhat faster than PHYS 101, allowing time to present some additional topics, such as an introduction to special relativity.