Physics 4610-2, 4620-2 and 4630-2: Physics Honors

Physics and Engineering Physics majors may graduate with a Departmental Honors Physics with one of the following special designations on their diploma and transcript:

* cum laude in Physics
* magna cum laude in Physics
* summa cum laude in Physics

To be eligible for Departmental Honors in Physics a student must complete an original piece of research, and write and defend an honors thesis. The oral defense of the thesis is conducted with your three-member honors thesis committee. The faculty on the committee typically consist of your research advisor, a Physics Honors Council Representative, and a member of the faculty from another department. Typically the presentations last for 40 minutes. Theses vary widely in length. The thesis committee votes and makes a recommendation to the Honors Council regarding the level of honors: no honors, *cum laude*, magna cum laude or *summa cum laude*. The Honors Council, a fifty-member faculty committee, makes the final decision. The factors in that decision are quality of the research, quality of the written thesis, quality of the oral presentation and handling of questions, and the student’s overall GPA. Ordinarily to be eligible for *summa cum laude* a student needs an overall GPA of 3.8 or above, for *magna cum laude* an overall GPA of 3.5, and for *cum laude* an overall GPA of 3.3 or above. However, a GPA of 4.0 with no honors thesis will not earn an honors designation, nor will a 4.0 GPA with a very poor quality thesis earn a designation. An especially high quality thesis will often bump a student up from one designation to another - for instance a student with a 3.4 and a very strong thesis may earn a magna or, possibly, even a summa designation. It is for this reason that we open enrollment in PHYS 4610/4620/4630 to students with a GPA’s of 3.0 or above. A student with a 3.0 GPA would need to write an exceptionally good thesis to be eligible for *cum laude*.

The thesis may be directed by a faculty member from physics or any of the associated departments and institutes, including APS, CASA, JILA, departments in engineering or even a local research lab such as NIST or NREL. Physics Honors Council members will determine if an outside thesis advisor is an acceptable choice and can play a helpful role in directing students towards potential advisors.

The College of Arts and Sciences and College of Engineering and Applied Science also award honors designations based on CU GPA alone. Arts and Sciences awards “With Distinction” honors for high GPA. Engineering awards *cum laude*, magna cum laude and summa cum laude designations based on GPA. These designations are independent of and in addition to Departmental Honors in Physics.

There will be once per week hour-long honors meetings which all enrolled students
are required to attend. The students will rotate through giving 20 minute oral presentations of their research to their peers. It is expected that honors students will spend between 6-10 hours per week working on their honors research. To graduate with an honors designation students should enroll in at least one semester of honors, although two or three are more usual. The Physics Honors sequence PHYS 4610, PHYS 4620, and PHYS 4630 are controlled enrollment courses used for this purpose. You will need to contact a Physics Honors Council representative if you are interested in enrolling.