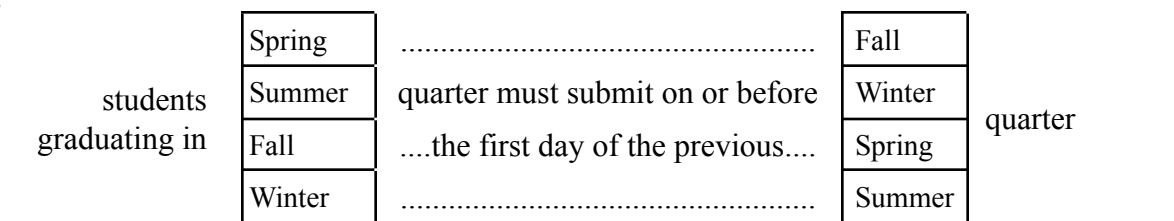


BACHELOR'S HONORS THESIS - Overview

The UCSB Physics department has special opportunities for students seeking advanced experience in research and laboratory skills at both the lower-division and upper-division levels. Sophomore-level honors laboratory courses (PHYS 13AL, 13BL and 13CL) require unusual independence and creativity and are available to students that meet the College of Letters and Science Honors requirements. Physics 142L, 143L, 144L and 145L, 198 and 199 are available to qualified upperclassmen. All of these Honors courses require the consent of the instructor and qualify for the College of Letters and Sciences Honors Program.

The opportunity to pursue a Bachelor's Honors Thesis is available for students who maintain a grade point average of 3.5 or better in upper-division Physics coursework. Completion of an Honors Thesis involves developing a research project under the supervision of a faculty member, presenting a public seminar describing the work, and submitting a formal written report to the faculty member and the Senior Faculty Adviser for approval. Honors Thesis work is credited via one of the following courses: PHYS 142L, 143L, 144L, 145L, 198, and 199.

Students must submit an Honors Thesis proposal, signed by their proposed Faculty Mentor, that satisfies the requirements below, at least three (3) quarters before their intended graduation. To wit,



It is recommended that students discuss plans to pursue an Honors Thesis with a faculty research mentor *several quarters before* the proposal deadline (*e.g.*, before the Fall of their junior year).

It is further recommended that students who plan to complete an Honors Thesis fulfill their upper-division lab requirements in the JUNIOR year so they can concentrate on thesis research in the senior year. While intense experimental research can sometimes be substituted for Physics 128AL*, students conducting theoretical research are required to complete Physics 128AL.

*Students seeking to substitute 4 units of PHYS 199 earned in pursuit of an Honors Thesis must have a Physics Faculty member commit to ensuring that the student will achieve equivalent learning outcomes in the course of their Honors Thesis research. This Physics Faculty member would normally be the student's research mentor. If the student's research mentor is not a faculty member in the Physics Department, the student must have the Physics Department faculty co-signer of their Honors Thesis commit to ensuring that the learning outcomes of PHYS 128AL are met by the Honors Thesis research.

BACHELOR'S HONORS THESIS - Essential Elements

Honors Theses must state the problem to be studied, summarize previous knowledge, make some advance, and assess the significance of that advance.

1. *A thesis proposal, signed by the proposed thesis advisor, must be submitted to the Physics Undergraduate Advisor at least three quarters before the quarter in which the thesis will be finished, even if the student is not registered for that quarter.*
2. *Any ladder faculty member or permanent research staff member of the Physics Department is an acceptable thesis advisor.*
 - a. *To do a thesis under the supervision of a faculty member outside the Physics Department, the student must engage a Physics Department ladder faculty member (e.g., their faculty academic advisor) as a co-signer on the thesis proposal.*
 - b. *By co-signing, that Physics Department ladder faculty member commits to ensuring that the student's work meets Departmental standards for an Honors Thesis.*
3. *While it is common for a thesis to involve more than 300 hours of work, the maximum amount of academic credit that can be earned for a thesis may not exceed 10 units. Note that one unit corresponds to 30 hours of work per quarter (an average of 3 hours of work per week in a 10 week quarter).*
 - a. *Although recommended, it is not necessary for a student to earn research units to complete an Honors Thesis.*
 - b. *However, students seeking to substitute intense experimental research for Physics 128AL must enroll in 4 units of PHYS 199 during a single quarter under the Physics Faculty member involved with their Honors Thesis. PHYS 199 must be taken for a letter-grade.*
4. *To complete an Honors Thesis, the student must:*
 - a. *submit, via email to the Undergraduate Staff Advisor before the last day of classes in the quarter they intend to graduate, a PDF of their written thesis signed by their research mentor (and Physics Faculty co-signer, if any).*

(Thesis document templates are available on the Grad Division's [website](#))
 - b. *arrange and give a seminar about their Honors Thesis work that is open to the public and advertised within the Physics Department, before the last day of classes in the quarter in which they intend to graduate.*

(Rooms can be reserved by filling out a form on the Physics Department website, Resources page.)

EXAMPLE TIMELINE

Spring of Sophomore year: engage with a research mentor
Summer after Sophomore: become familiar with research under mentor's guidance
Throughout Junior year: pursue research under mentor's guidance
Summer after Junior year: formalize Honors Thesis proposal under mentor's guidance
(based on work done and anticipated)
Start of Senior year: submit signed Honors Thesis proposal
Winter of Senior year: submit written Honors Thesis to mentor for feedback;
schedule Honors Thesis Seminar for week 5-7 in Spring quarter
Spring of Senior year: advertise Honors Thesis Seminar
present Honors Thesis Seminar
submit signed Honors Thesis to Physics Undergraduate Advisor

FORMATTING

For dissertation formatting, please go to

<https://www.graddiv.ucsb.edu/filing/filing-your-thesis-dissertation-or-dma-supporting-document>