

Department of Physics and Astronomy Senior Projects

What is the Senior Project?

Physics 191, Senior Project, is the capstone course for physics majors. The goal of this course is to provide an opportunity for students to demonstrate the scientific skills that they have learned in the process of obtaining their degree. It is also intended to enrich the educational experience of the students by offering them the possibility of a genuine research experience. Students who are successful in this course will have proven their ability to a) identify a problem that they have the ability to solve, b) utilize their skills developed in prior course work to solve a problem, c) analyze the results of a problem, and d) report the results of a problem to their peer group via written and oral reports.

What specifically is required?

Students are expected to spend a minimum of 90 hours (for two units) working on the project for a passing grade in this course. Acceptable uses of time are: preliminary/background research, planning, development, construction, implementation, programming, analysis, and report preparation. All students will give a presentation (nominally 20 minutes followed by a 5 minute Q/A period) of their work to the department near the end of the semester in which they complete their project. A final written report is due by the beginning of the 13th week at the same semester. Your grade is determined by a committee of your research advisor, the Senior Project Coordinator ([Prof. Buerki](#)), and one more faculty member based on the work itself and the report.

How do I go about deciding on a project?

The nature of this course provides a broad range of opportunities of projects for students. Students may perform an experimental research, theoretical research, or computation research with our faculty. Students interested in physics education may select a project to construct a demonstration apparatus or develop and test a new laboratory experiment. For more information on what our faculty members' research interests, visit the About the Department page.

Can I use off campus research, like a summer program, to count towards it?

Yes. You can use [summer research](#) (like an REU Program) to count towards Senior Project.