

## PHYS 3995 - Research

Research is scientific work on a project that culminates in a written report describing the project. There is no formal requirement for length or content of the report. The report should discuss the objectives, what was done, accomplishments and results, and it should emphasize the physics involved. Good target audiences for the report are other advanced undergraduate physics majors or a group of non-specialist faculty members who are interested in learning what was done.

### Procedure

Students seeking to enroll in PHYS 3995 are encouraged to talk to one of the undergraduate physics major advisors to discuss their particular interests and to visit the departmental website at <http://www.phys.virginia.edu/> to learn about the activities of each faculty member. They should ask faculty members about the possibility of working on a research project. The Society of Physics Students keeps a list of open undergraduate research projects at their website (<http://www.faculty.virginia.edu/spsuva/>). Having agreed with a faculty member on a project, the student enrolls in PHYS 3995 into the course section of this faculty member.

### General Requirements:

- Student and faculty member agree on the program and what is to be done, and a brief written plan is completed before the course drop date.
- A student can take PHYS 3995 multiple times. However, the physics major advisor's approval is needed to be able to count PHYS 3995 more than once towards physics major requirements. Approval will be given if the research is done in different research fields.
- Student and faculty member meet regularly, at least once a week for tutoring, discussion and reporting progress.
- Student should work 10 or more hours per week including contact, lab, library, and outside study as expected for other three-credit-hour courses.
- Students may not receive PHYS 3995 credit for paid research, for example from summer internships or Research Experiences for Undergraduates programs. It is, however, possible to continue such research in a significant manner with a physics professor during a subsequent semester.

- Research projects performed in labs that are not supervised by faculty members of the Physics Department can qualify if a Physics Department faculty member agrees, in advance, to co-supervise the research.
- The study culminates in a written report that the instructor evaluates for its science content and English composition.
- The grade is based on some judgement of performance as well as the quality of the report.
- A copy of the report is collected by our receptionist for retention in departmental files.