Syllabus

PHYS 491(2,3)/401 - Research Project I(II,III)/Research
Instructor: Bryan Boggs
Office: 43 Willamette Hall, Office Hours: Monday, 9-10am
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phone: 541-346-5296 (office); 541-346-7963 (Willamette lab)

Teaching Assistants: Paul Martin - Lab Hours: M 1-3, W 1-5, Th 1-4; Office Hours (Will. 250): Tu 4-5
David Grych – Lab Hours: Tu 2-5, W 1-4, F 11-2; Office Hours (Will. 12): Tu 1

Required materials: Lab Notebook. E.g., Blue Bound Large PN: 43581 (~ 8$ at UO Bookstore)

- Students will work on physics research projects in groups of 1-2 (2 preferred).

- Each group will (after choosing a project) submit to the instructor (electronically via email) a set of goals and a timeline to meet the goals at the beginning of the term.

- Students are expected to attend weekly group meetings. This may be relaxed as the term progresses.

- Each group will give a Power-Point type presentation (~15-20 minutes) at the last group meeting of the term.

- Each group will deliver an electronic copy of their presentation to the instructor and add-to/update the lab's wiki site with their project materials.

- Each group will (at the term's end) clean up their lab space in preparation for the next students.

Learning Outcomes: Ability to perform semi-independent research. Knowledge of principles and concepts for project-specific subject areas. Ability to apply physics principles and concepts to analyze problems. Ability to appropriately analyze and interpret experimental results. Ability to communicate orally and in writing experimental progress and results.

Grading Policy:
- Group meeting attendance is mandatory (exceptions can be worked out in advance).
- Students are expected to work on their projects the required number of hours (this includes reading, machine/electronics shop work, group meeting and in-lab time) based on their registered credit level (number of registered credits times 3 each week).

Grades will be assigned based on how well the group met its stated goals and/or the written (in the presentations) reasons the goals were not met. Grades will also be based on the presentations, wiki material, demonstration of the learning outcomes and lab cleanup as well as the number of hours worked on the projects.

Note: This is a semi-independent research course not a standard lecture-type course. As such, grades between students cannot be compared on the same scale (students work different projects with different physics and research requirements). Each student/group is graded independently with the learning outcomes and the grading policy in mind. In addition, students who take the course multiple terms are expected to perform with increasing knowledge, capability and sophistication.