



CATALOG YEAR 2012-2013

COLLEGE/SCHOOL/SECTION: COAS \_\_\_\_\_

**Course:** Add:  Delete:   
(check all that apply) Change: Number \_\_\_ Title \_\_\_ SCH \_\_\_ Description \_\_\_ Prerequisite \_\_\_\_\_

**Response Required:** New course will be part of major \_\_\_ minor \_\_\_ as a required \_\_\_ or elective  course

**Response Required:** New course will introduce \_\_\_, reinforce , or apply \_\_\_ concepts

If new, provide Course Prefix, Number, Title, **Measurable** Student Learning Outcomes, SCH Value, Description, prerequisite, and lecture/lab hours if applicable. If in current online catalog, provide change and attach text with changes in red and provide a brief justification.

**Justification:** It is better to add the course with the title of Undergraduate Research in Physics rather than use Independent Study in Physics. In addition, this course will focus on the research topic.

**PHYS 4180-4380 Undergraduate Research in Physics. One-three semester hours. (FL/SP)**

**Course Description:**

Students work on a physics research project. The topic is chosen by the student and approved by the instructor. Course may be repeated under different topic for credit. Prerequisite: Permission of instructor and department. Offer only "Satisfactory/Fail" grades.

**Student Learning Outcomes:**

Upon successful completion of this course, the student will be able to:

- identify appropriate steps necessary to conduct research in physics project;
- apply mathematical techniques to solve physical problems;
- formulate significant research questions;
- effectively write, interpret, and report the research results;
- present research topic with a clear manner.

Approvals:	Signature	Date
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Chair Department Curriculum Committee	_____	_____
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College Curriculum Committee

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