## **PHYSICS MINOR**

## Donald A Smith, Department of Physics

The common thread connecting the different goals and focuses of students pursuing a physics minor is the physicist's approach to thinking about, modeling and understanding the universe. This process relies on clear, analytical and often abstract thinking but is ultimately grounded in concrete reality as exposed by experiment. Reaching a clear, realistic understanding of some aspect of the world is of value in not only science and engineering but also business, medicine, law and many other fields. The physics minor will be most useful for majors in other sciences or education who wish to increase their exposure to analytical, mathematical and computational tools which they may later wish to use in their chosen fields of study. These may include chemistry majors interested in physical chemistry, geology majors interested in geophysics and biology majors interested in biophysics. Mathematics majors wishing to gain experiences with hands-on, real- world problems that require the tools of mathematics would also be interested in this minor. The minor will be of value to students in other fields and will be individualized to maximize exposure to skills to useful the individual in his or her chosen field of study.

Each student pursuing the physics minor will design a program of study with his or her advisor(s). In addition to the required PHYS 231 and PHYS 232 experimental courses, most students will choose to take a two semester sequence like PHYS 211/212 or PHYS 121/22 for their two theory courses, and then find a third course to get the other four credits. An independent research project is optional but encouraged.

The minor in physics is not available to physics majors.

## **Minor Requirements**

The minor requires a minimum of 16 credit hours (four courses), at least 4 credits of which must be in experimental physics and 8 credits in theoretical physics.

Code	Title	Credits
PHYS 231	Experimental Physics I	2
PHYS 232	Experimental Physics II	2
One PHYS course at the 200 level or above Two additional PHYS courses at any level		4
		8
Total Credits		16

PHYS 210 Observatory Practice may be used to count for 2 credits of experimental physics (replacing either 231 or 232) and 2 credits toward the "any level" requirement.

**Note:** PHYS 101 Physics for Nonscientists (variable title)., PHYS 104 Elementary Electronics (CTIS 104), PHYS 107 The Solar System, PHYS 108 Realm of the Stars, PHYS 109 Beyond the Stars and PHYS 461 Physics Research Seminar do not apply toward either Physics major or the minor. Physics X50 courses may count, depending on their content. The student should be clear with their advisor whether a certain special topics course counts or not before taking it.