

Department of Physics

McMicken College of Arts and Sciences

**SUMMER RESEARCH OPPORTUNITIES
FOR UNDERGRADUATE WOMEN**

APPLICATION DEADLINE: March 1, 2007

The Department of Physics is pleased to offer the following research project for the summer of 2007. Interested students are urged to contact the faculty member(s) directing the project that most interests them. By contacting the faculty member, you can discover more about the project, learn what your responsibilities will be and if possible, develop a timetable for the twelve-week research period.

PULMONARY FUNCTION –ANALYSIS OF EXHALED BREATH

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Project Description

We have an opportunity for a student to work on medical instrumentation related to detecting physiologically inert gases in exhaled breath. Depending upon the student's interest, this could include working with hardware, with data acquisition and analysis software, and/or doing computer simulations related to using such measurements to measure pulmonary function. The student should have completed first-year calculus-based physics. Knowledge of, or willingness to learn some pulmonary physiology, is necessary. The position will likely entail computer programming, although no specific knowledge of computers or experience is necessary.