

## LINFIELD COLLEGE PHYSICS DEPARTMENT SUMMARY 2006

The physics department at Linfield College has a long history of honoring a strong commitment to undergraduate education and research. We have 6 faculty members in our department (Dr. Bill Mackie, Dr. Tianbao Xie, Dr. Jennifer Heath, Dr. Joelle Murray, Dr. Michael Crosser, and Dr. Don Schnitzler) and we pride ourselves on providing a quality curriculum and in depth advising, engaging in active research, and contributing to campus life through committee leadership and service. While many small colleges have only recently begun to develop an undergraduate research program, Linfield's physics department has consistently involved a large number of undergraduates in externally funded research projects for over 60 years.

In the classroom, we provide an engaging experience for our major and non-major students and enjoy being highly accessible and helpful to them. We offer two majors, Physics and Applied Physics. On average; we graduate 8-10 physics and applied physics majors each year. This number is regularly amongst the highest number of physics graduates in the state of Oregon and is larger than about 87% of the institutions in the US offering bachelors degrees in physics. Our Applied Physics program distinguishes us from other small colleges, and attracts students who are interested in the small liberal arts college experience, but who also wish to prepare for engineering masters programs and careers.

In addition to the more standard physics and applied physics curriculum, we require that all of our students write a senior thesis based on independent research. This means that during the summers, the majority of our students participate in research with faculty members on campus or off campus through the National Science Foundation's Research Experiences for Undergraduates (REU) programs. This past year, eleven students performed summer research. Five students worked with Linfield faculty and the remaining six students held positions in REU programs at Stanford Research Institute, Wright State University, the University of Utah, Johns Hopkins University, the University of California at Santa Barbara, and Batelle Laboratory.

We believe that our success is attributable to quality instruction in the classroom, active advising, and hands-on research experience. One way to measure the achievements of our program is by the success of our graduates. Students graduating from our program have a wide variety of opportunities after leaving Linfield. The following list is a sample of some of these opportunities taken by Linfield graduates in recent years.

- Research and teaching assistantships at Ph.D. programs at Northwestern University, Stanford University, Columbia University, University of California-Davis, University of California at Santa Barbara, Michigan State University, University of Colorado-Boulder, and University of Oregon
- Fulbright Scholarship to study geophysics in Iceland
- Intellectual Property and Patent Law program at Stanford University

<sup>1</sup>American Institute of Physics Statistical Research Center - <http://www.aip.org/statistics/trends/highlite/ed/tableA.htm>