Physics “Good News” Highlights for the 2007-2008 Academic Year

This past year, the Physics Department offered a wide range of courses: from general education to upper-division physics electives. Physics students had the opportunity to enroll in Analytical Mechanics I, II, Experimental Physics II, and Quantum Mechanics I. Physics faculty also taught the UNIV 101 course to incoming freshmen and courses in the STEP curriculum (the NSF funded Science Talent Expansion Program). Some of the major accomplishments of CWU Physics faculty and students for the 2007-2008 academic year are listed below.

Student Scholarships

- Travis Petersen was the recipient of a Leadership Scholarship ($2,000) from the Society of Physics Students (SPS).

Student Grants and Awards

- Chris Parker received a CWU Alumni Award in October 2008.

Club Awards

- The CWU Society of Physics Students chapter was selected as an “Outstanding SPS Chapter” for the 2006-2007 school year by the National Society. This is the eleventh time in the last fourteen years the CWU chapter has been honored. Taylor Kendall, physics graduate, was the chapter president last year. Sharon Rosell, physics, is the chapter advisor.

Student Presentations

Oral Presentations

Poster Presentations


Faculty Grants [funded]

- Mike Jackson "Enhancing NASA related research and educational activities at Central Washington University," Washington Space Grant Consortium/NASA, $10,000 (with $10,000 matching) (2008).
- Mike Jackson "Laser and Optics Instructional Laboratory" CWU COTS Essential Instructional/Research Equipment Request, $14,970 (2008).

Faculty Publications

- Mike Jackson published the journal article “Frequencies of cw FIR laser lines for use in laser magnetic resonance spectroscopy” in Applied Physics B, vol. 92, pgs. 5-7 (2008).
- Bruce Palmquist published an educational dialog between China and the United States during Education Week in September, 2008.
- Bruce Palmquist publishes a weekly column in the Ellensburg Daily Record entitled “What’s Up in the Sky.”
Invited Faculty Presentations

- Bruce Palmquist spent two weeks in China during the 2008 summer at Shaanxi Normal University (SNNU) in Xi'an, China, nearly 575 miles southwest of Beijing. Bruce was invited to SNNU by fellow physics professor Guian Li, who teaches at the university. Li visited the CWU Physics Department during the 2006-2007 school year. During his visit, Bruce gave nine talks on several subjects including best practices in teaching physics and middle school science education, fostering creativity in the classroom, as well as a talk on CWU's Science Education Department. He also discussed Chinese and American education on “Casual Talk” a program on Shaan’xi Normal University TV station.

Faculty Conference Presentations

- Mike Braunstein presented “Assessing Undergraduate Research” at the Washington Section of the American Association of Physics Teachers (AAPT) in October 2007.
- Mike Jackson presented “Incorporating undergraduates into faculty research in the areas of optics and physical chemistry” at the CUR National Conference in June 2008.
- Andy Piacsek presented “Analysis and synthesis of vowel sounds in a PC-based lab” at the National ASA meeting in December 2007.

Faculty Professional Activities

- Mike Braunstein, Mike Jackson, and Sharon Rosell and four physics students (Jeff Leiseth, Evan Masters, Chris Parker, and Travis Williams) attended the Washington section of the AAPT held at the Laser Interferometer Gravitational Wave Observatory (LIGO) in October 2007. Mike Jackson was elected for a three-year term (as President Elect, President and Past President) for the organization. Central Washington University will be hosting the conference in October 2009 at the PSE Wild Horse Wind Farm.
- Mike Braunstein served as reviewer for the NASA Postdoctoral Program (2007).
- Mike Jackson was re-elected as CUR Councilor for the Physics and Astronomy Division. The Council on Undergraduate Research (CUR) is a national organization that supports and promotes high-quality undergraduate student-faculty collaborative research and scholarship.
- Mike Jackson served as an external reviewer for two Ph.D. theses at the Post Graduate and Research Department of Physics, Presidency College, (University
• Bruce Palmquist served as Science Education Program Director in Spring/Summer 2008 and as Director of the CWU-Green River Community College program (2007-2008).
• Andy Piacsek co-chaired the “Physical Acoustics: Mathematical and Numerical Methods I” session at the Acoustics ’08 conference in Paris, France.
• Andy Piacsek continued in his last year as Director of the CWU Science Honors Program (2007-2008).
• Sharon Rosell attended the annual meeting of the Pacific Northwest Association for College Physics in April 2009. Sharon presented the treasurer's report, attended the Board of Director's meeting, and was re-elected treasurer of the association.

Outreach Programs
• Mike Jackson and two physics students (Travis Petersen and Evan Masters) performed nine “Kaleidoscopes” shows for the third grade classes at Lincoln Elementary School, Mt. Stuart Elementary School, Valley View Elementary School, and Kittitas Elementary School in December 2007/January 2008. There were 285 students, teachers and guests in attendance.
• Bruce Palmquist organized numerous star parties and planetarium shows during the year. One example was a planetarium show for 40 people at the “Exploring Kittitas County” event in August 2008.
• Bruce Palmquist gave two lectures in January 2008 for the Ellensburg Christian School Chapel.
• Bruce Palmquist and the CWU astronomy club performed eight planetarium shows for the “Nature of Night” event in November 2007. A total of 225 participants attended.
• Andy Piacsek gave multiple sessions of lecture and demonstrations on the subject of physics of sound and applications to music at the Suzuki Festival workshops in November 2007. He also presented the physics of sound to the Ellensburg High School physics class (Winter 2008).
• Sharon Rosell and the SPS club gave several physics workshops during the academic year, including the “Expanding Your Horizons” program in November 2007 and March 2008 and for two area Preschools (20 students).
• Sharon Rosell, Mike Jackson with the CWU Astronomy and SPS clubs performed a “Merit Badge Astronomy Outreach Program” for over 70 Girl Scouts (Cadets, Juniors, and Brownies) in May 2008.