Lane Seeley, Associate Professor of Physics

Email: seelel@spu.edu

Phone: 206-281-2011

Office: Otto Miller Hall 131

Education: BS, University of Puget Sound, 1994; MS, Montana State University, 1995; PhD, University of Washington 2001. At SPU since 2001.

Lane Seeley earned his Ph.D. in experimental condensed matter physics at the University of Washington. His doctoral work focused on testing microscopic and mesoscopic models for phase changes in the nucleation of ice from liquid water. Since joining the faculty at Seattle Pacific University in 2001 he has worked closely with colleagues to build a close-knit physics department that is primarily focused on student learning. Lane has worked with departmental colleagues on several grant funded projects aimed at supporting K-12 physics and physical science teachers. He has served as the SPU site leader for the PhysTEC project which aims to recruit and better prepare the next generation of physics teachers. He has played an active role in the development of web based diagnostic tools for physical science teachers. Most recently, Lane has been a lead researcher on the SPU Energy Project, a research effort aimed at studying and supporting energy learning among K-12 teachers.

Lane's current research interests include; building bridges between the energy we learn about and the energy we care about, studying growth in learner's ability and disposition to use a rigorous energy model creatively and flexibly, and understanding some of the real and perceived obstacles to student centered science instruction. Lane is also specifically interested in the conceptual challenges learners encounter when reasoning constructively with global climate models.

Recent Publications:

- **Assessing for shifts in learner's energy reasoning strategies,** L. Seeley, 2013 Physics Education Research Conference Proceedings, P. V. Englehardt, A. D. Churukian, and D. L. Jones (Eds.), AIP Conf. Proc. , pp. 337-340 (2014)

- **Constructing a sustainable foundation for thinking and learning about energy in the 21st century.** L Seeley, S Vokos, and J Minstrell, Seattle Pacific University, Teaching and Learning of Energy in K-12 Education, R.F. Chen, A. Eisenkraft, D. Fortus, J. Krajcik, K. Neumann, J. Nordine, and A. Schef (Eds.), pp. 337-356, Springer International Publishing Switzerland 2014.