



University of
Central Arkansas™

UCA Research in STEM Education Seminar

Speaker: Dr. Andrew Mason
UCA Department of Physics

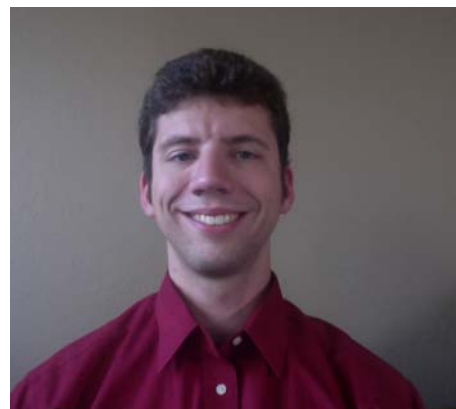
Title: Pedagogical Considerations for Non-Physics
Science Majors: Perceptions and Attitudes
Towards Learning Problem Solving

Date: Thursday, March 12, 2014

Time: 1:40-2:30 p.m.

Place: MCS 115

Lunch will be provided.



ABSTRACT : Pedagogical Considerations for Non-Physics Science Majors: Perceptions and Attitudes Towards Learning Problem Solving.

A well-researched topic in physics education research is with regard to introductory physics students learning a problem solving framework. In addition, a recent trend within physics education research (PER) has shown an interest in introductory physics for life sciences (IPLS) courses, aimed at predominately biology majors. However, when students' choice of major varies within a classroom, the effect of problem solving pedagogy may be tempered by different expectations of students based upon different majors. Samples of data for introductory algebra-based physics courses over the Fall and Spring 2014 semesters indicate correlations between students' indicated orientation for the utility of an in-class group problem solving exercise and other class-wide factors such as epistemic views of the course, content understanding, and overall course grade. Preliminary considerations for enrollment fluctuations between semesters, and their effect on this data, are also discussed.