



Department of Physics, Astronomy & Materials Science
Southwest Missouri State University, Springfield, Missouri



Research in Physics Education and the Development of Improved Instruction

Dr. David E. Meltzer
Department of Physics and Astronomy
Iowa State University, Ames, Iowa



Thursday, 3-4 PM
November 18, 2004
Kemper Hall
Room 216

Systematic investigations into student learning of physics have been carried out at an increasing pace in recent years, particularly at the undergraduate level. This research involves exploring the process by which students come to understand physics concepts, and uncovering the difficulties and obstacles encountered by students as they learn. In many cases, this work has led to development of new and more effective instructional materials and pedagogical strategies. I will outline the principal goals and methods of this research and show how it can lead to improved learning in the classroom. I will illustrate the process by discussing some of the investigations carried out by the Physics Education Research Group at Iowa State University. In particular, I will describe in some detail our recent investigation into student learning of thermodynamics.

Host/Contact: Dr. Mani K. Manivannan, 417-836-6425/5131; kam319f@smsu.edu

Department of Physics, Astronomy, and Materials Science, Southwest Missouri State University, Springfield, MO 65804.