962-G1-410 **Karen A Marrongelle*** (kam5@cisunix.unh.edu), Department of Mathematics and Statistics, Kingsbury Hall, University of New Hampshire, Durham, NH 03824, **Kelly Black** (kelly.black@unh.edu), Department of Mathematics and Statistics, Kingsbury Hall, University of New Hampshire, Durham, NH 03824, and **Dawn Meredith** (dawn.meredith@unh.edu), Department of Physics, DeMeritt Hall, University of New Hampshire, Durham, NH 03824. *The outcomes of direct problem solving instruction in an integrated calculus and physics program.* Preliminary report.

Students were exposed to direct problem solving instruction during the second semester of a two-semester integrated calculus and physics program for first year engineering students. The direct problem solving instruction included model probelem solving by the instructors, introduction to a problem solving hueristic, practice problem solving in groups, and discussion of metacognitive aspects of problem solving. Six students who received direct problem solving instruction as part of their class and six students who did not receive direct problem solving instruction as part of their class participated in clinical interviews at the beginning, middle, and end of the semester. The clinical interviews were designed to probe the students' ability to solve non-routine physics and applied calculus problems. Results indicate that students who received direct problem solving instruction attemped to lay out a plan of solution and monitor their work as they solved problems more often than those students who did not receive direct problem solving instruction (Received September 29, 2000)