Summer Institute for Physical Science Teachers Ponn Maheswaranathan, Cliff Calloway, Winthrop University — A summer institute for physical science teachers was conducted at Winthrop University, June 19-29, 2006. Ninth grade physical science teachers at schools within a 50-mile radius from Winthrop were targeted. We developed a graduate level physics professional development course covering selected topics from both the physics and chemistry content areas of the South Carolina Science Standards. Delivery of the material included traditional lectures and the following new approaches in science teaching: hands-on experiments, group activities, computer based data collection, computer modeling, with group discussions & presentations. Two experienced master teachers assisted us during the delivery of the course. The institute was funded by the South Carolina Department of Education. The requested funds were used for the following: faculty salaries, the University contract course fee, some of the participants’ room and board, startup equipment for each teacher, and indirect costs to Winthrop University. Startup equipment included a Pasco stand-alone, portable Xplorer GLX interface with sensors (temperature, voltage, pH, pressure, motion, and sound), and modeling software (Wavefunction’s Spartan Student and Odyssey). What we learned and ideas for future K-12 teacher preparation initiatives will be presented.

Ponn Maheswaranathan
Winthrop University

Date submitted: 11 Jan 2007