Jan O. Case* (jcase@jsu.edu), JSU Department MCIS, 700 Pelham Road North, Jacksonville, AL 36265, and David Dempsey. EMCAT: Exploring Mathematical Concepts through Applications of Technology.

An innovative program was initiated at Jacksonville State University to provide training in the incorporation of technology into the mathematics classroom. The endeavor resulted from a partnership between the mathematics department and the college of education. An existing course, Selected Topics in Mathematics for the Secondary Teacher, was adapted into a completely new format. The course uses the NCTM content divisions to examine secondary mathematics topics from an advanced standpoint. Applications using Geometer’s Sketchpad, Fathom, graphing calculators, and web-based instructional materials are emphasized. After a week of content coverage, lesson plan sessions, and activities, the participants remain involved in the course through Blackboard communications and follow-up sessions during the subsequent semester.

While JSU’s program was the beneficiary of grant support from No Child Left Behind funding and additional support from the university, a similar program could be replicated through existing professional development systems. The necessary components are a course with content that lends itself to technological applications, cooperative faculty among the disciplines of mathematics and education, and a procedure for awarding credit to in-service teachers. (Received September 26, 2005)