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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)