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Judy S. O'Neal* (joneal@ngcsu.edu), Department of Mathematics & Computer Science, North Georgia College & State University, Dahlonega, GA 30597. *Improving Middle Grades Mathematics Instruction Through Certification of Mathematics Specialists.*

The University System of Georgia Board of Regents, Georgia's P-16 Council, and the Georgia Professional Standards Commission have joined forces to improve the mathematics preparation of current and future middle grades teachers by the year 2006. Requirements for how this will be accomplished parallel the recommendations of the Mathematical Education of Teachers Document and include mathematics instruction for future teachers, cooperation among parties involved in the mathematical education of teachers, and policies to support high quality school mathematics teaching. Through increased coursework and changing certification requirements, every middle grades mathematics teacher must be certified as a mathematics specialist. This talk will focus on how a liberal arts institution of 3000 students has responded to this mandate through the design and implementation of a program for preparing middle grades mathematics teachers. The content and instructional methods of newly designed and existing courses meeting the mandate as well as course delivery techniques will be examined. Specifically, a new hands-on, manipulative-based and technology-enhanced course focusing on modeling in algebra will be highlighted. Examples of activities as well as assessment tools will be featured. (Received June 18, 2000)