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Rebecca H McGraw* (rmcgraw@math.arizona.edu), 617 N Santa Rita Ave, Tucson, AZ 85721, and **William McCallum**. *Connecting Mathematics and Pedagogy in Courses for Future Algebra Teachers*.

Integrating mathematics content and pedagogy in mathematics teacher preparation requires the combined attention of faculty who teach future teachers, namely, mathematicians and mathematics teacher educators. Collaborations across these disciplinary boundaries have resulted in various strategies useful to the preparation of future algebra teachers. Specific methods developed through one such collaboration at the University of Arizona include (1) development of particular mathematical content, e.g., definition of function, followed by analysis of the ways such content is introduced in algebra textbooks, (2) mathematical investigations of exploratory problems at the undergraduate level coupled with the development of problems and lessons to be used with algebra students, and (3) using exemplary lessons for algebra students as a basis for building and extending mathematical knowledge, and then using that knowledge to write questions, assessments, and extensions for algebra students. Each of these examples is characterized by the co-development of mathematical and pedagogical knowledge, and the lessening of traditional separations between these knowledge domains. (Received September 22, 2009)