Ji Li\* (jli@math.arizona.edu), Department of Mathematics, The University of Arizona, 617 N. Santa Rita Ave., Tucson, AZ 85721-0089. An algebra course for middle school teachers.

The Arizona Teacher Initiative (ATI) master's degree program in middle school mathematics leadership targets middle school teachers with elementary certification. They are trained with mathematics content, engaged in pedagogical discussion, and design an action research project. Algebra is one of the four core course in the program. This 4-unit course combines mathematics content with pedagogical discussion throughout. The two threads are intertwined during teaching. The current ATI algebra is made possible under the group effort of William McCallum, Bruce MacMillan, Alyssa Keri, Virginia Bohme, and Ji Li. In this talk we will give an overview of ATI algebra, as well as present some examples to illustrate the design of this content. (Received September 22, 2009)