In 2008, Fitchburg State University (FSU) changed their mathematics requirements for pre-service students which included developing two new courses and increasing the number of required mathematics courses for elementary education students from 2 to 3. One of the new courses is essentially a college algebra course designed for future teachers and corresponds to the Patterns, Functions and Algebra strand of the Massachusetts Curriculum Framework. This presentation will summarize grant and sabbatical activities that helped fine tune this course as well as some other ideas for improving the mathematics preparation of future elementary teachers in Massachusetts. (Received September 21, 2010)