Faculty at the University of Mary Washington participated in a multi-institutional state-wide grant to create and teach courses to provide in-service teachers with the mathematical background and resources for teaching middle school mathematics. Each of the four courses was taught jointly by a mathematics professor and a master teacher, who was an experienced, certified middle school or high school mathematics teacher. The courses were designed to improve the teachers’ mathematical understanding and model recommended pedagogical strategies. This presentation will provide information about the series of courses that make up the program and the overarching grant. The presenters will also relate their experiences teaching the courses, report on assessing the teachers’ learning, and offer suggestions on how to improve future course offerings. (Received September 16, 2008)