We will describe a collaborative effort between the mathematics education and mathematics department to develop a new middle school program that attends to the Common Core State Standards for Mathematics (CCSSM) - Content Standards and Standards for Mathematical Practice. To develop preservice teachers’ mathematics knowledge for teaching, faculty from both departments’ co-planned syllabi and enacted lessons, as well as co-taught lessons. In addition, to developing preservice teachers’ mathematical content knowledge within mathematics courses, preservice teachers took the MyMathTest within their mathematics education courses, to review and remediate mathematical objectives identified on CCSSM Content Standards for Grades 5-9. Our faculty reviewed students’ performance on MyMathTest to further refine instructional efforts, and improve the overall quality of the program. Furthermore, instructional activities and assessment measures (such as journaling and Socratic seminars) were used to help preservice teachers cultivate habits of minds identified in CCSSM Standards for Mathematical Practice, foster students’ engagement, and encourage active learning. (Received September 22, 2015)