Meeting: 1003, Atlanta, Georgia, SS 2A, AMS-MAA-MER Special Session on Mathematics and Education Reform, I

1003-97-104 Cameron C. Sawyer* (sawyerc@southwestern.edu), P.O. Box 7432, Georgetown, TX 78626. Developing a Capstone for Pre-service Secondary Teachers: A PMET Initiative. Preliminary report.

The goal of this presentation is to describe the standards-based mathematics capstone course which is designed to develop a deeper conceptual understanding of grades 8-12 mathematics. This capstone is intended for senior math majors in order to strengthen their preparation for becoming secondary teachers. The objectives of the capstone course are to connect students' mathematical knowledge with the mathematics they will be teaching, to develop their knowledge of mathematics and mathematics-specific pedagogy, and to provide students with multiple perspectives through which to understand how mathematics is learned. The project is supported by the MAA's PMET (Preparing Mathematicians to Educate Teachers) program. We will explain how we involved mathematics department faculty and alumni as well as ideas from the education department in the formation of this new course. (Received August 06, 2004)