Curtis D Bennett* (bennett@math.msu.edu), Department of Mathematics and Statistics, Bowling Green State University, Bowling Green, OH 43403, and David E Meel (meel@bgnet.bgsu.edu), Department of Mathematics and Statistics, Bowling Green State University, Bowling Green, OH 43403. An Example of a Capstone Course for Mathematics Education Majors.

The two basic recommendations in Chapter 5 of the MET Draft report are: (1) ”to enhance and refocus the content and teaching of core mathematics major courses to help future teachers use advanced subject matter knowledge to gain insight into related topics of high school mathematics”, and (2) ”to design, develop, and offer a capstone sequence for teachers in which fundamental ideas and techniques of high school mathematics are examined from an advanced standpoint.” At Bowling Green State University (BGSU), we designed a capstone course merging these two recommendations. This talk will center upon our experiences with this capstone course. The content of this course examines the concept of number at a variety of levels (following a roughly historical development of the topic), and we use these conceptions to reflect upon the high school curriculum. We shall describe the course, and discuss our experiences in instituting this course at BGSU (and as a one-time course at Michigan State University). (Received September 07, 2000)