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Mercedes A. McGowen*, 1200 W. Algonquin Road, Palatine, IL 60067-7398. *The Vision, the Challenge, and the Reality: An examination of efforts to develop preservice teachers mathematical habits of mind in the mathematics content courses.*

This presentation describes a community college mathematics content program for preservice elementary teachers (two courses) designed to deepen students' understanding of the mathematical concepts and content of the K-8 mathematics curriculum. The first course focuses on two content strands: Patterns & Functions and Nature & Use of Number. In this course, students develop a deeper understanding of the conceptual basis of number concepts, their operations, and symbolic representations. The second course focuses on four content strands: Statistics, Probability, Geometry and Measurement. Students are encouraged to think deeply about the mathematics they will be teaching, to develop the ability to view mathematics as a system of interrelated principles; to communicate mathematics accurately, verbally, in writing, to make conjectures, provide informal proofs and justification of their work and conclusions. Problems which illustrate the broad and flexible applicability of basic ideas and modes of reasoning emphasize interconnections and generate discussions that reveal students' thinking, their understanding of proof, their beliefs about the elementary school mathematics content they need to know, and their assumptions about grade school children's mathematical abilities. (Received September 16, 2000)