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Xuhui Li\* (xhli58@yahoo.com), Department of Mathematics and Statistics, California State University, Long Beach, 1250 Bellflower Blvd, Long Beach, CA 90840. Developing a Comprehensive and Balanced Perspective on School Algebra Among Practicing Secondary School Mathematics Teachers.

As a continuing professional development activity for secondary school mathematics teachers, MTED 540 Algebra in the School Curriculum has been offered at California State University – Long Beach to practicing teachers enrolled in the mathematics education master degree program.

The course aims at developing a comprehensive and balanced perspective on school algebra. It includes four components: 1. Analyzing the major aspects and themes of school algebra, the various conceptions on algebra, and the key features of algebraic thinking. 2. Reviewing the changing emphases and reoccurring issues in school algebra since the 1950s; Examining the major events and factors that shaped the evolution of the school algebra curriculum. 3. Evaluating and contrasting algebra-related policy documents, organizational visions and individual perspectives. In particular, three algebra standards are examined and contrasted in details: (1) NCTM 2000 Principles and Standards for School Mathematics; (2) NCTM 2006 Curriculum Focal Points; (3) Mathematics Framework for California Public Schools. 4. Based on research literature, discussing typical conceptions and difficulties that students bring into or develop during algebra learning, and potential strategies for improving student understanding. (Received September 23, 2009)