

1023-G1-199 **Robert G Stein*** (bstein@csusb.edu), Robert G. Stein, 3823 S. E. Woodward Street, Portland, OR 97202. *Mathematical Courses for Middle School Teachers: The CSUSB Approach.*

Basic considerations: 1. Course material adapts easily to middle school classrooms. 2. Conceptual understanding and skill proficiency both stressed. 3. Middle school mathematics presented not in isolation but as part of a larger continuum

CSUSB embeds math for middle school teachers in an integrated sequence beginning with mathematics for elementary teachers and extending into high school math.

Pedagogy based on the “discovery approach” and work of W.W. Sawyer and Robert Wirtz, in the Math Workshop for Children. • Emphasis on growth of abstract and general ideas from specific examples and physical models. Use of general ideas:

- a. As the concrete basis for further abstraction
- b. As the basis for specialization • Algebra presented as:
 - a. Generalized arithmetic
 - b. A language

Focus is on relationships between various parts of mathematics. Many ideas presented from several points of view. Open-ended activities to accommodate the needs of the eager beavers, freeing teachers free to work with others.

The talk will illustrate the above points in detail. (Received August 23, 2006)