## 1035-H1-620Laurie J. Burton\* (burtonl@wou.edu), Mathematics Department, Western Oregon University,<br/>Monmouth, OR 97361. Visual College Algebra for Middle School Teachers.

At Western Oregon University we offer a preservice middle school mathematics course: Visual College Algebra. We use concrete models (algebra pieces) and look at algebraic ideas using a numeric, verbal and symbolic approach. In this class, students often say "This is the first time I have ever really understood algebra." Visual Algebra starts with modeling integer operations, then modeling linear and quadratic patterns and then connects all of those ideas to symbolic manipulation, creating data sets, graphing, finding intercepts and points of intersection. The last chapter extends these ideas to higher order polynomial functions and modeling complex numbers operations. I have created a Visual Algebra student text (activity sets with explanations, definitions and examples, homework sets, end of chapter review and practice tests, back of book solutions) and a corresponding set of instructor materials (section by section instructor notes; pedagogical guides and teaching suggestions, complete activity and homework solutions and class overheads). After class testing, 2007-2008; these materials will be available for general use. During this talk, I will describe the complete set of materials and give examples of the student and the instructor materials. (Received September 12, 2007)