

1086-D1-1212 **David M. Clark*** (clarkd@newpaltz.edu), Mathematics Department, State University of New York, New Paltz, NY 12561. *Reasoning and Communication through Axiomatic Geometry*.

The author will describe the use of his new text, *Euclidean Geometry: A Guided Inquiry Approach* (American Mathematical Society MSRI-MCL series #9) as a means of teaching reasoning and oral communication. This book gives a new and mathematically sound system of axioms for Euclidean geometry that incorporates modern advances in mathematics which were not available to Euclid. Students solve problems and prove theorems on their own in an inquiry-based format, and then present and defend their results in a friendly and supportive classroom environment. Lecturing is minimized, as the primary role of the instructor is that of a mentor and a guide. Through this process students learn to think critically and creatively, to say what they mean and to mean what they say. Communication skills are challenged and developed through the need to explain their own complex ideas to their peers and convince them that they are correct. (Received September 20, 2012)