

1135-D5-1866      **David M Clark\*** (clarkd@newpaltz.edu) and **Samrat S Pathania**. *Advanced Euclidean Geometry via IBL*. Preliminary report.

The speaker's text, *Euclidean Geometry: A Guided Inquiry Approach*, is written for a one semester undergraduate IBL course particularly designed to give preservice teachers a deeper understanding of the content they will teach. It gives an axiomatic development of the standard topics of synthetic plane geometry: congruence and similarity through transformations, area measure, angle measure, trigonometry and circles. Obviously it is not possible to do all of this in full Hilbert style detail in one semester. To accommodate this fact the development includes logical gaps and unstated assumptions that are carefully chosen to be transparent to undergraduate students.

This talk will report on a follow up IBL course that will fill in all of those gaps without any unstated assumptions. It is intended for advanced students who have completed the previous text. It is also intended for college and university instructors who would themselves like to have a deeper understanding of the content that *they* will teach. (Received September 25, 2017)