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Y. Yvonne Lai* (lai@math.ucdavis.edu), 2131 Mathematical Sciences Building, Department of Mathematics, UC Davis, Davis, CA 95616. *U.C. Davis Explore Math: A model for bringing together graduate, undergraduate, and high school students.*

The Davis Math Circle is a tuition-free, annual 10-week program for high school students in northern California. The program includes a seminar for undergraduates on teaching mathematics to high school students. The seminar and the Math Circle lessons are taught by mathematics graduate students at U.C. Davis.

All seminar participants observe and assist Math Circle instructors. In the coming year, lesson topics include graph embeddings, game theory, and oscillatory systems. The seminar aims to immerse its participants in interesting mathematics while simultaneously introducing them to the challenges of teaching well.

Last year, the seminar successfully taught its participants that good teaching requires mathematical and pedagogical foresight. This year, the seminar builds upon this idea by giving undergraduates teaching experience in three formats: one-on-one tutoring, group work, and interactive lecture. As a capstone project, each seminar participant will present a guest talk at a local math tutoring center.

In this talk, we will discuss the practical side of this seminar: lessons learned about the format of weekly meetings with instructors, the teaching style used by graduate student instructors, and working with local school districts. (Received July 26, 2007)