

1023-J1-174

Stephen B. Maurer* (smaurer1@swarthmore.edu), Math/Stat Dept, Swarthmore College, 500 College Ave, Swarthmore, PA 19081. *An Honors First-year Seminar in Linear Algebra.*

Many entering students place out of calculus. What should they study next? At Swarthmore we have long said: linear algebra. It provides a broader view of mathematics and allows multivariate calculus to be done with more sophistication afterwards. Many of our strongest incoming students have taken an honors version of linear algebra. More recently, we have combined these curricular choices (which are hardly unique to us) with a pedagogical choice: take linear algebra as a first-year seminar. We meet 5 hours a week, around a seminar table with blackboard all around. Students learn to be actively engaged, to cooperate, to work through many problem sets, and to present material to each other. The result is solid understanding and fun.

The author will detail how this system works, what students say about it, and his most recent variant, teaching it in tandem with a first-year physics seminar that used linear algebra to study quantum mechanics. (Received August 17, 2006)