962-G1-1351   **Frank Zizza*** (`zizza@u.arizona.edu`), University of Arizona South, 1140 N. Colombo Dr., Sierra Vista, AZ 85635. *Integrating Mathematics and Astronomy.*

Five classroom modules will be presented: Determining distances on an astronomical scale, Conic sections and Keplerian orbits, Historical models of the solar system and parametric equations, Deriving Newton's inverse square law from Kepler's laws using Geometer's Sketchpad, and Introduction to non-Euclidean geometry via Lenart spheres. These modules are appropriate for students who are at least prepared for calculus. Components of these modules are laboratory assignments where students collaborate using Geometer's Sketchpad, Mathematica and XEphem. (Received October 03, 2000)