939-98-540   **Svetlana Katok*** (`katok_s@math.psu.edu`), Department of Mathematics, The Pennsylvania State University, University Park, PA 16802. *Teaching geometry in the MASS program at Penn State.*

MASS (Mathematics Advanced Study Semesters) program at Penn State started in the Fall of 1996. It is a semester-long program which provides a comprehensive mathematical environment for a group of talented undergraduate students selected from U.S. colleges and universities. The program combines advanced learning with research initiation. Each year three courses in general areas of analysis, geometry and algebra/number theory are offered. The particular topics change from year to year. One of the central aspects of the MASS program is a thorough integration of different elements and emphasis on the unity of mathematics. The author will talk about a course she taught in the MASS-97 program entitled "Arithmetic and Geometry of the Unimodular group", which emphasized the role of transformation groups in study of Euclidean and non-Euclidean geometries, and demonstrate by this example how MASS program works. (Received September 26, 1998)