

Meeting: 1003, Atlanta, Georgia, SS 19A, AMS Special Session on Mathematicians' Work on Mathematics Education

1003-20-1177 **Lisa A Mantini*** (mantini@okstate.edu), 401 MSCS Bldg., Oklahoma State University,
Stillwater, OK 74078-1058. *An Undergraduate Course in Symmetry and Finite
Groups*. Preliminary report.

The theory of group representations is important throughout mathematics and has numerous applications, since groups occur in many contexts as symmetries of mathematical or physical objects. However it is usually taught only at the graduate level, as the theory is highly technical and has numerous prerequisites. This talk will describe an approach to teaching the theory of finite group representations at the undergraduate level which has been successfully used at OSU for several years. The approach mixes theory with a strong emphasis on computation and on real-world applications, and has appealed to engineers and mathematics education majors as well as to mathematics majors. (Received October 04, 2004)