Scott A. Strong (sstrong@mines.edu), Mathematical and Computer Sciences Dept., Colorado School of Mines, Golden, CO 80401, Barbara M. Moskal (bmoskal@mines.edu), Mathematical and Computer Sciences, Colorado School of Mines, Golden, CO 80401, and Graeme Fairweather* (gfariwea@mines.edu), Mathematical and Computer Sciences Dept, Colorado School of Mines, Golden, CO 80401. Assessing the Mathematics Core: A Mixed Method Approach at the Colorado School of Mines.

This presentation discusses recent research completed in Mathematical and Computer Sciences (MCS) at the Colorado School of Mines. Specifically, this investigation addresses the effectiveness of coordinated courses, which refers those that share a common syllabus, goals and examinations. The "course coordinator" is the faculty member who is responsible for ensuring uniformity across sections. The coordinated MCS courses include: Calculus I, II, II, Differential Equations and Probability and Statistics. In order to examine the effectiveness of coordination, both quantitative and qualitative data were collected and analyzed. Grade assignments and student surveys provided the data sources. Based on the analysis, students who were in the coordinators’ courses displayed benefits over students who were in the other courses. Specifically, over a five semester period, significantly more "A’s" were assigned in coordinators’ courses than in the other courses. Course evaluations and student surveys suggested that students in the coordinators’ courses provided higher ratings of their instructors and courses than did the other students. The presentation provides a more detailed description of the above described methods, results and interpretations. (Received September 28, 2005)