A trend in higher education is program assessment (i.e., determining if the students graduating from our program have the knowledge that we, as an institution, are claiming they have). Usually, program outcomes are mapped to learning outcomes of the courses, which then are assessed through coursework. Often, there are disconnects between the statement of program outcomes and the materials collected to assess the outcomes. In this presentation, I will describe an approach to design tests for data collection in a mathematics course for engineers and will discuss the results of implementing the approach. (Received September 21, 2010)