Assessments of background knowledge have been given for multiple courses, such as Introductory Statistics, Multivariate Calculus, and Differential Equations. Their value is greater as a communications tool rather than as a diagnostic tool. Close student-faculty interaction in a capstone course in modeling over many semesters has yielded qualitative assessment which helps hone student skills in written and oral communication and in problem-solving. (Received September 26, 2006)