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Ralph W Carr* (rw carr@stcloudstate.edu), Department of Mathematics, ECC-234, St. Cloud State University, 720 Fourth Av S., St. Cloud, MN 56301. *A Bridge to Higher Mathematics for Science and Engineering majors*. Preliminary report.

Most science and engineering majors at any university must enroll in a sequence of mathematics courses beginning with calculus. Many students at the sophomore level have learned the scientific method (performing controlled experiments and discovering natural laws by collecting data that are approximations to reality with occasional data outliers). They may not yet understand that the IF-THEN deductive method of proof in mathematics requires that once the hypotheses of the theorem are verified the conclusion always follows without exception. This paper examines a simple project for students to help clarify this distinction using a simple mathematical model from a beginning course in differential equations. (Received July 27, 2007)