

Math Readiness: The Implications for Engineering Majors

Lloyd Heinze, James Gregory, John Rivera

College of Engineering
Texas Tech University

Abstract

Good Math skills are essential to obtain academic success in engineering majors in college. Timing of when these skills are developed, while not a requirement for success, is highly correlated with success in engineering programs.

At Texas Tech University, Calculus III is a required course for all programs in the College of Engineering except for degrees in the Engineering Technology Department. Success of a “C” or better grade in Calculus III is usually associated with a future engineering graduate.

An analysis was made to determine the probability of completing a “C” or better grade in Calculus III as a function of starting position in math as an incoming freshman. Texas Tech University has a well established math placement process that regulates the starting position based on math skills. The seven year development history of this process is discussed and the results of over 4,000 engineering students will be tabulated. Finally the recent movement to web base procedures will be demonstrated.

Lloyd R. Heinze
Texas Tech University
Petroleum Engineering Department
8th & Canton
Lubbock, TX 79409-3111
806-742-1801ext236
806-742-3502 (fax)
Lloyd.Heinze@ttu.edu

James Gregory
Texas Tech University
College of Engineering
Lubbock, TX 79409
806-742-3456
James.Gregory@coe.ttu.edu

John Rivera
Texas Tech University
College of Engineering
Lubbock, TX 79409
806-742-3456
John.Rivera@coe.ttu.edu