

Abstract Submitted
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Analysis of the Impact of Introductory Physics on Engineering Students at Texas A&M University JONATHAN PERRY, WILLIAM BASSICHIS, Texas AM University — Introductory physics forms a major part of the foundational knowledge of engineering majors, independent of discipline and institution. While the content of introductory physics courses is consistent from institution to institution, the manner in which it is taught can vary greatly due to professor, textbook, instructional method, and overall course design. This work attempts to examine variations in student success, as measured by overall academic performance in an engineering major, and matriculation rates, based on the type of introductory physics a student took while enrolled in an engineering degree at Texas A&M University. Specific options for introductory physics at Texas A&M University include two calculus based physics courses, one traditional (UP), and one more mathematically rigorous (DP), transfer credit, and high school (AP or dual) credit. In order to examine the impact of introductory physics on a student's degree progression, data mining analyses are performed on a data set of relatively comprehensive academic records for all students enrolled as an engineering major for a minimum of one academic term. Student data has been collected for years of entering freshman beginning in 1990 and ending in 2010. Correlations will be examined between freshman level courses, including introductory physics, and follow on engineering courses, matriculation rates, and time to graduation.

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