

SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
On Track - Undergraduate Space Education (3)

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ASSESSING THE CORRELATION BETWEEN STUDENT BACKGROUND AND SUCCESS IN STEM
AND SPACE EDUCATION**Abstract**

It is important to understand how students learn and succeed in Science, Technology, Engineering, and Mathematics (STEM) courses of study in order to encourage and improve education in space related fields. Through study and understanding of variables that affect student performance, it is possible to better predict student success in STEM and space related courses of study.

This paper is based on a study to determine the effects of student gender, instructor gender, college major, transfer status from another university, and class section on student success in undergraduate STEM education. Data was collected and analyzed from a sample of 155 students taking an Industrial and Systems Engineering course at the University of Alabama in Huntsville in fall 2011. Results show a notable correlation between the students' backgrounds and overall course performance.

As understanding of the effects of these variables on student success increases, educators are enabled to make adjustments both before and during undergraduate education that will maximize the probability of student success. These adjustments will allow for more effective and successful STEM education to increase the number of qualified STEM graduates able to pursue careers in space related fields.