

Abstract Submitted  
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**Successful Pre-testing and Early Intervention in Algebra-based Introductory Physics** REBECCA FORREST, DONNA STOKES, ANDREA BURRIDGE, University of Houston — Pre-testing and early intervention measures to identify and remediate at-risk students were implemented in the algebra-based Introductory General Physics I course at the University of Houston to help improve student success rates. Pre-testing consisted of a math and problem-solving skills diagnostic exam administered at the beginning of the course. Students identified as at-risk based on their scores were encouraged to utilize on-line math tutorials. Results from 618 students enrolled in 6 sections of the course showed that at-risk students who successfully completed the math tutorial had significantly higher course grades and were significantly more likely to pass the course, controlling for course section, diagnostic exam score, and other class characteristics. The odds of passing for students who completed the math tutorials were almost 4 times higher than those who did not. Based on these results, on-line math tutorials are now made available to all students in both algebra- and calculus-based introductory physics courses at the University of Houston.

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