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College precalculus can be a barrier to calculus: integration of precalculus with calculus can achieve success.

Baxter Hastings, Nancy, A fresh start for collegiate mathematics. Mathematical Association of America, Washington, DC (ISBN 0-88385-179-2). 285-294 (2006).

One of the primary functions of a precalculus course (whether in high school or in a college or university setting) is to serve as a preparation for the first course in calculus. It is this 'preparing for calculus' course, specifically in the college or university setting, that we assert is failing in its stated purpose. The dismal percentage of those who complete precalculus and continue on to complete the calculus I course makes it clear that something is very wrong. Tinkering with content, technology, and pedagogy may improve the precalculus course, but these repairs do not address several fundamental problems. We discuss here an alternative one-year college course that integrates the review of precalculus topics on a just-in time basis; it has shown documented success in helping a larger number of students succeed in completing calculus I. (Introduction)

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