

Abstract Submitted
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Self-efficacy and belonging in introductory STEM majors

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WEST VIRGINIA UNIVERSITY TEAM — A survey measuring students' feelings
of self-efficacy and belonging within multiple environments within Science, Technol-
ogy, Engineering and Mathematics (STEM) and the campus community was admin-
istered to introductory, calculus-based physics classes at a large public land-grant
university yielding 481 complete responses. The sense of belonging and self-efficacy
varied significantly between broader environments such as the institution and major
to more narrow environments such as the physics class or lab group. Strong gen-
der effects ($p < .001$) were identified; these were highly class dependent. Exploratory
factor analysis identified 2 underlying self-efficacy factors and 3 belonging factors.

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