

Abstract Submitted
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Physics Student Attitudes toward Science and Mathematics

JOHN STEWART, RACHEL STOIKO, West Virginia University — This study presents data collected over 10 years at a large mid-western university. Students attitudes toward science and mathematics and the teaching of science and mathematics were measured with a pretest and a posttest using McGinnis and colleagues (1998) survey instrument, Attitudes and Beliefs about the Nature of and the Teaching of Mathematics and Science. Four physics class sequences were studied: calculus-based University Physics, algebra-based College Physics, conceptual physics for non-science majors, and Physics for Elementary Teachers taken by pre-service teachers. Strongly significant differences in attitudes toward mathematics and science were found for the students in four classes with the future teachers most resembling the attitudes of the conceptual physics class. Difference by race and gender were also explored. Students attitudes towards mathematics and science decreased in the college and university physics classes but increased in the other classes.

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