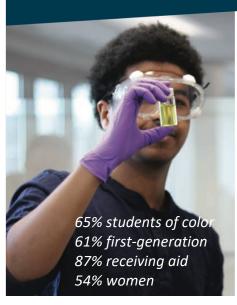
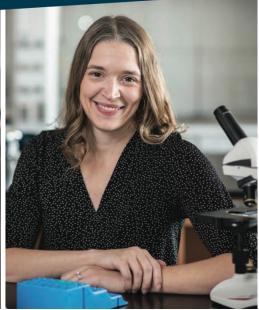
SAINT PAUL COLLEGE

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INNESOTA STATE

Saint Paul College, A member of Minnesota State







Science Technician: Advancing Minnesota's Workforce

This ATE project comprises four basic elements:

- (1) revision of the AS degree curriculum, renamed from Science Technician to Science and Engineering Technology (SET);
- ➤ Progress: The revised SET AAS program was approved with three focus options: chemistry, biology, and engineering. The revisions provide a potential dual major with other STEM AS degrees and direct path to employment.
- (2) incorporation of authentic research experiences in collaboration with local industry partners;
- (3) provision of services to broaden participation in program;
- Progress: Momentum on (2) and (3) hampered by COVID-19 forcing an inability to offer required courses that include an oncampus research component. Enrollment currently at 9, but enrollment is increasing in other STEM programs.
- (4) educational research on changes in the scientific identity and educational and career goals of students.
- ➤ Progress: We collected baseline survey data from students in Principles of Chemistry 1, common to all three focus areas, during 2019-20. Preliminary highlights are shown (n = 121).

70% overall interest in Health/Medical Career, significant regression models: URMs 4.7x more likely to indicate interest, men 0.1x as likely to indicate interest, 1st generation status not significant

The program has an emphasis on industry-related internships or research experience and getting hands-on experience using high-tech instrumentation. The Science and Engineering Technology pathway leads to employment in a science laboratory or industry experience leading to a four-year transfer degree.

learn more

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General Chemistry students' attitudes towards science: Baseline data using scales from literature:

Intrinsic motivation toward science	33%
toward science	
Positive attitude	30%
toward science	3070
Self-efficacy in	29%
science	29%
High level of science	120/
identity	13%