



STEM BACKGROUND

April 2008

As science and technology continue to have a growing affect on our daily lives and our economy, building the necessary foundation through education is critical. Consider these facts:

- The U.S. Bureau of Labor Statistics forecasts that employment in science and engineering occupations will increase 70 percent faster than the overall growth rate.
- Here in Minnesota, the Department of Employment and Economic Development reports that 18 out of the 20 fastest growing occupations will be tied to the science, technology, engineering and math (STEM) disciplines.

Private colleges' commitment STEM education

At the 17 institutions that are members of the Minnesota Private College Council, STEM education has long been a cornerstone. Here are some key points:

- **Minnesota's private colleges and universities are a significant contributor to bachelor's-degree graduates, awarding 28 percent of STEM degrees.**
- Our share of undergraduate degrees is even higher for some key STEM-related areas:
 - 34 percent of all biological and biomedical science degrees,
 - 45 percent of all mathematic degrees, and
 - 49 percent of all physical science degrees.
- One out of five Minnesotans of color who earn undergraduate STEM degrees do so at one of our private colleges and universities. That makes us the state's second-largest source of STEM grads of color.
- Strong graduate level programs at our institutions mean we award 14 percent of STEM master's degrees in the state. These programs include nursing, software engineering and health informatics.
- One-third of students pursuing masters and doctoral degrees at the University of Minnesota received their undergraduate degrees at one of our private colleges.

Our graduates build strong foundations in STEM fields while also gaining critical thinking skills that are essential in our increasingly flat global economy—a key benefit of our liberal arts focus.

STEM examples

There are many examples of our colleges' STEM contributions. Here are just a few:

- St. Olaf College graduates more chemistry majors than any other four-year college in the nation.
- To counter the shortage of elementary teachers with STEM expertise, the College of St. Catherine has developed a STEM minor.

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- Concordia College graduates enter medical school at rates that are twice the national average.
- In 2004 the University of St. Thomas established one of three new U.S. engineering schools.
- Carleton College is a leading source nationally of female undergraduates who then earn doctorates in the physical sciences.
- Fourteen of our colleges partner with the U of M's Institute of Technology dual degree program in engineering.
- Nine of our colleges participate in the Mayo Scholars Program — a collaborative effort with the Mayo Clinic Office of Intellectual Property and Medtronic Foundation.
- Five of our colleges are part of the North Star STEM Alliance, which aims to double the state's minority STEM graduates in the next five years.
- Three of our colleges are pilot sites for Minnesota MentorNet, which pairs STEM college students with professionals for one-on-one e-mail mentoring.

Visit www.mnprivatecolleges.org for more on the STEM disciplines and private colleges — including the Minnesota Private College Fund's Galileo Scholarship Fund.