



Minnesota
STATE COLLEGES
& UNIVERSITIES

CENTERS OF EXCELLENCE

OVERVIEW

In 2005, Minnesota State Colleges and Universities established centers of excellence in health care, manufacturing and engineering, and information security at four state universities and 18 community and technical colleges. These centers offer state-of-the-art educational programs, conduct applied research and connect with K-12 schools and business and industry to help local economies thrive and to position Minnesota for a strong future.

CENTER FOR STRATEGIC INFORMATION TECHNOLOGY AND SECURITY

www.strategicit.org

Lead: Metropolitan State University

Partners: Inver Hills Community College and Minneapolis Community and Technical College

Focus: Develop new curricula, programs and credentials that anticipate and fulfill needs for educating and training workers in computer information systems, computer forensics and computer security.

Background: Businesses depend more than ever on complex and secure information systems. As information technology becomes increasingly sophisticated, workers must have more specialized knowledge and skills. This center will cutting-edge, accessible and responsive programs and services. Activities will focus on career readiness, career preparation, career advancement and professional development for individuals, private and public organizations and industry associations.

Core degrees and programs include:

- 33 programs in computer and information science and support services, including computer programming, computer science, computer software and media applications, computer systems analysis, computer systems networking and telecommunications, computer and information systems security and information science.
- two programs in the engineering technologies, including computer technology and computer systems technology.
- six programs in business management information systems and services.

HEALTHFORCE MINNESOTA

www.healthforceminnesota.org

Lead: Winona State University

Partners: Rochester Community and Technical College, Pine Technical College, Minnesota State College-Southeast Technical, Ridgewater College, Minneapolis Community and Technical College, Normandale Community College, and Riverland Community College

Focus: Position Minnesota as a leader in health care education, practice and innovation, particularly for recruiting and retaining a more diverse health care workforce. Prepare and support a work force that understands technological advances, and link health care education with health care practice.

Background: The U.S. faces rapidly changing and complex challenges in health care. Demand for workers is likely to grow as the population ages. Higher education must work closely with health care practitioners to create and adopt innovative approaches that help contain health care costs while offering access to the highest quality services.

Core degrees and programs include:

- five programs in bioinformatics.
- two programs in biomedical sciences and biotechnology.
- 77 programs in health professional and related clinical sciences , such as nursing, dental support services and allied professions, allied health diagnostic, intervention, and treatment, community health services and counseling, allied health and medical assisting services, clinical laboratory technology, dietetic technician, and home health aide or home attendant.

MINNESOTA CENTER FOR ENGINEERING AND MANUFACTURING EXCELLENCE

www.mnceme.org

Lead: Minnesota State University, Mankato

Partners: Alexandria Technical College, Anoka Technical College, Hennepin Technical College, Normandale Community College, South Central College and Northeast Higher Education District

Focus: Increase interest in engineering as a career, especially among minorities and females; develop engineers and technicians with skills that support advanced manufacturing milestones; initiate innovation in developing and using renewable and recyclable resources; ensure Minnesota industries remain globally competitive; assist industry in meeting critical needs through customized training and promote best practices in engineering and manufacturing education.

Background: To stay ahead of global competitors, Minnesota companies must have highly skilled workers who think creatively and adapt rapidly. This center will develop a national reputation for assisting innovative manufacturers, particularly related to automation and renewable and recyclable resources.

Core degrees and programs include:

- five programs in computer and information science and support services.
- nine programs in engineering.
- 60 programs in engineering technologies, such as computer, drafting or design, electrical, hydraulics, automotive, and general engineering technology, and industrial production
- five programs in science and math with concentrations in physics, math, chemistry and bioscience.

- one program in biotechnology.
- two programs in construction trades, including building and property maintenance and management.
- four programs in mechanic and repair technology that include heavy and industrial equipment maintenance and automotive mechanics.
- 20 programs in precision production, such as machine tool technology and machinist.

360° MANUFACTURING AND APPLIED ENGINEERING CENTER OF EXCELLENCE

www.360mn.org

Lead: Bemidji State University

Partners: Central Lakes College, Northwest Technical College, Northland Community and Technical College, Pine Technical College, Saint Paul College, St. Cloud Technical College and Minneapolis Community and Technical College.

Focus: Create a labor pool of talented and well-skilled students, develop innovative processes and enhance the ability of Minnesota manufacturers to be highly competitive in the global economy.

Background: Minnesota faces serious shortages of highly skilled manufacturing workers. By developing strong ties with K-12 education, the consortium will help students develop strong math and science skills and engage their creativity in manufacturing through “hands-on” learning activities. Applied research activities will lead students and faculty to design and employ best practices to stay ahead of the competition.

Core programs and degrees include:

- more than 50 programs in general engineering and engineering technologies, such as civil, drafting and design, electrical, electro-mechanical instrumentation, industrial management, industrial production, mechanical and quality control.
- three programs in industrial mechanics and maintenance and engine machinist.
- 25 programs in precision production (precision metal working and cabinetmaking and millwork).
- six programs in business management and related support, such as logistics and materials management, operations management and supervision, and specialized sales, merchandising and marketing).

ABOUT MINNESOTA STATE COLLEGES AND UNIVERSITIES

The Minnesota State Colleges and Universities system (www.mnscu.edu) comprises 32 state universities and community and technical colleges on 53 campuses serving the higher education needs of Minnesota. The system serves about 242,000 students per year in credit-based courses and an additional 140,000 students in non-credit courses.

For more information or to arrange media interviews, please contact Melinda Voss, public relations director, Minnesota State Colleges and Universities, at 651-296-9443 or melinda.voss@so.mnscu.edu.