Big ideas.
Real-world thinking.

mnsu.edu

Minnesota State University
Mankato

CIVIL ENGINEERING *College of Science, Engineering & Technology*

WHAT IS CIVIL ENGINEERING?

Civil Engineering is a professional engineering discipline that deals with the design, construction and maintenance of a variety of infrastructure projects, including bridges, roads, water treatment and distribution systems, dams and buildings. Civil Engineering is a profession that serves the public and deals with finding solutions to problems involving traffic, water supplies, sewer systems, flood control, the environment, and many other areas involving the public. There are several disciplines within civil engineering including structural, geotechnical, water resources, transportation, environmental and many other emerging areas.

SHOULD YOU BE A CIVIL ENGINEER?

If you are interested in solving practical problems, designing solutions for the greater public, working with a team, are strong in mathematics and sciences, and want to challenge your analytical and communication skills, you should investigate the civil engineering field.

CAREER OPPORTUNITIES

Civil engineering graduates work in public agencies, for private consulting firms, or in other capacities. Public agencies might include municipal or county public works departments, state departments of transportation, federal agencies, and others. Consulting firms, concrete and steel design and fabrication plants, construction companies and other organizations employ civil engineers. Other employment opportunities may include research and development or teaching in academia. According to the Bureau of Labor Statistics, the median salary for civil engineers was $87,060 in 2019. Employment of civil engineers is expected to grow at 2 percent from 2019 to 2029. Overall job opportunities in engineering are expected to be good, due in part to population growth and the growing need to improve the nation's infrastructure.

PREPARING FOR A CAREER IN CIVIL ENGINEERING

The most effective preparation begins in high school. It is important to take introductory courses in calculus, physics, and chemistry in order to be prepared for the civil engineering curriculum at Minnesota State Mankato. The most important ingredients for success in civil engineering are curiosity about how and why things work – on both the large and small scale, eagerness to experiment, and commitment to solving problems to make the world better!

STUDENT ACTIVITIES

There are many opportunities for students to become involved with social and educational activities at Minnesota State Mankato. The student chapter of the American Society of Civil Engineers (ASCE) is a student-run organization that provides educational and leadership advancement opportunities as well as social activities. Throughout the year, the ASCE chapter sponsors speakers, tours, competitions, and organized social activities such as picnics, softball games, Adopt-A-Highway and others. The Steel Bridge, Concrete Canoe, Big Beam, and other national competitions provide opportunities to learn, lead, and interact with civil engineering students from Minnesota State Mankato and other universities. Civil engineering students can also participate in Engineers without Borders, a service organization that helps design and implement community improvement projects in underdeveloped countries.
Other organizations include the Society of Women Engineers (SWE), the National Society of Black Engineers (NSBE), and the Society of Hispanic Professional Engineers. Students also have many opportunities to work on research projects with the civil engineering faculty and to present their results at undergraduate research conferences at the university and at the national levels.

THE PROGRAM

The Civil Engineering program at Minnesota State Mankato strives to produce excellent engineering professionals with well-balanced analytical and practical understanding of the fundamentals of civil engineering. Coursework includes mathematics and basic sciences, communication including technical writing, humanities and social sciences, engineering sciences and engineering design. The program culminates with a senior design project that includes working with engineers from design firms, government agencies and with faculty and students from other engineering courses. These close ties with the local and regional engineering community have allowed many of our students and alumni to obtain internship and full-time positions with a broad range of engineering firms and public agencies.

Students take the Fundamentals of Engineering exam in their senior year, which is the first step towards professional licensure. Minnesota State Mankato's Civil Engineering program pass rate on this exam is higher than the national average.

The Civil Engineering program at Minnesota State University, Mankato is accredited by the Engineering Accreditation Commission of ABET (www.abet.org).

FACULTY & FACILITIES

Instructional and research labs at Minnesota State University, Mankato provide a strong hands-on experience. Labs are equipped with modern equipment which is made available for use by undergraduate civil engineering students.

The faculty have industry experience in their disciplines, and maintain ties with local, regional, and national professionals. The majority of the Civil Engineering faculty members are licensed professional engineers, and keep current with new technologies, design methods, and the world of civil engineering practice – a valuable resource for students.

There are seven civil engineering professors – each having earned a Ph.D. in their field, with expertise in structural, environmental, geotechnical, water resource, and transportation engineering.

FOR MORE INFORMATION PLEASE CONTACT

Department of Mechanical and Civil Engineering

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Mankato, MN 56001

Phone
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800-627-3529 or 711 (MRS/TTY)

Fax
507-389-5002

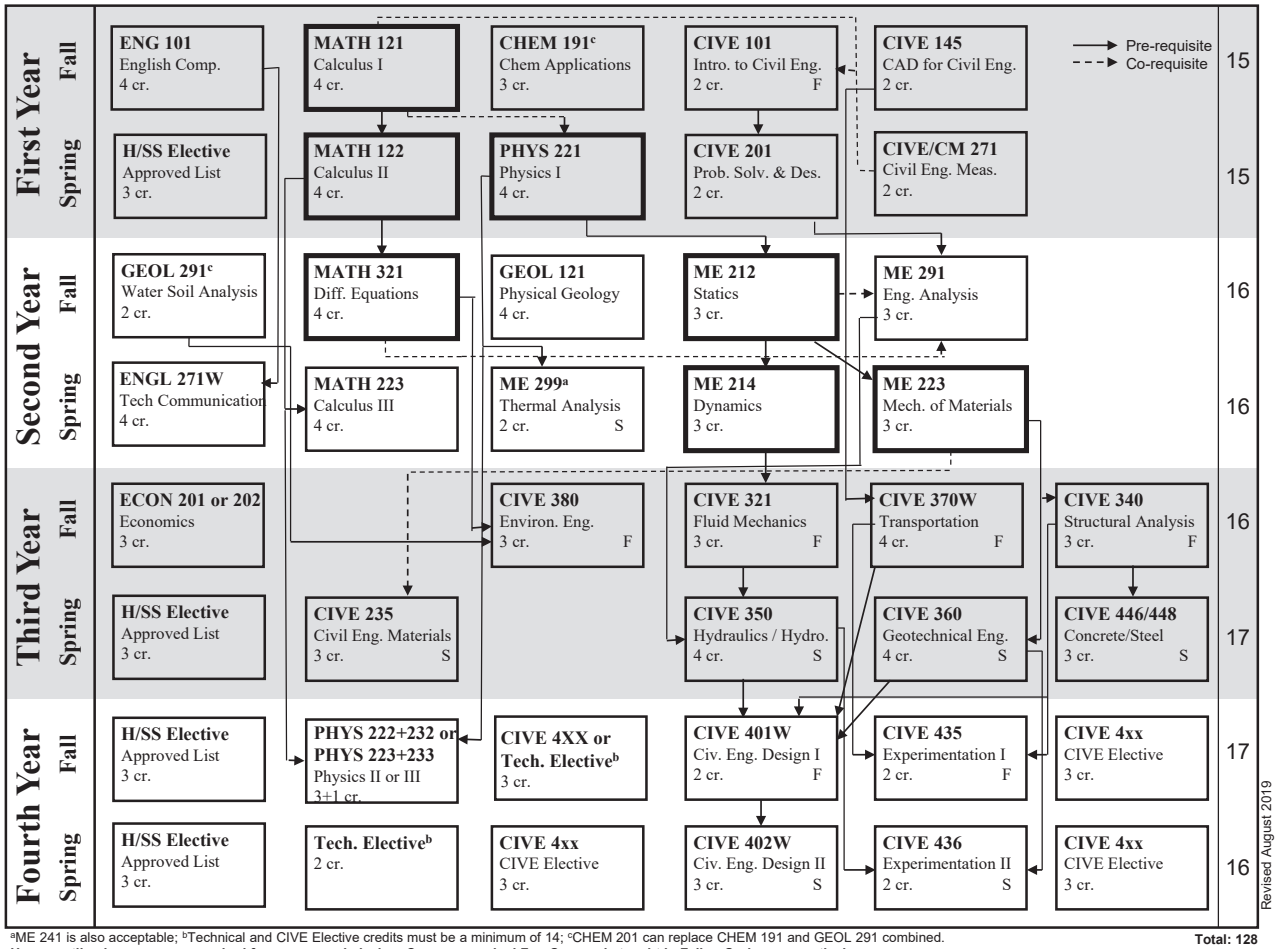
Website
https://cset.mnsu.edu/departments/mechanical-and-civil-engineering/civil-engineering/

You are encouraged to visit the campus. To arrange for a visit, please call: Office of Admissions: 507-389-1822
Toll-Free: 800-722-0544

SAMPLE FOUR-YEAR PLAN (CIVIL ENGINEERING, BS)

MINNESOTA STATE UNIVERSITY, MANKATO

Civil Engineering Program 2020-21



aME 241 is also acceptable; bTechnical and CIVE Elective credits must be a minimum of 14; cCHEM 201 can replace CHEM 191 and GEOL 291 combined.
Heavy-outlined courses are required for program admission. Courses marked F or S are only taught in Fall or Spring, respectively.

Total: 128

For additional information about course requirements, please visit http://www.mnsu.edu/supersite/academics/bulletins/

05/21

MINNESOTA STATE UNIVERSITY MANKATO