Strategic Plan 2023 to 2028

Mission

The Department of Civil, Environmental, and Geospatial Engineering provides an educational, professional, and intellectual experience that enables students, alumni, faculty, and staff to contribute to society through teaching, learning, research, practice, and service.

Vision

The Department of Civil, Environmental, and Geospatial Engineering will provide unique educational and research opportunities for students and faculty that promote fundamental understanding of our disciplines while providing a strong foundation to adapt to future change and improve the condition of humanity.

Culture

The Department of Civil, Environmental, and Geospatial Engineering (CEGE) aims to promote a culture that values teamwork and collaboration while recognizing all contributions of faculty, staff, and students to meet our core mission. We aim to reinforce the importance of safety to our department's constituents as industry expects these values in our graduates. To facilitate this culture, the Department realizes that faculty and staff accessibility to our students remains a top priority to support the building of mutually beneficial, life-long relationships and the development of our graduating engineers.

Programs

Strategic Objective – High-Impact Undergraduate Programs

As a signature trait of our department, we strive to maintain the excellence of all our undergraduate civil, environmental, and geospatial engineering programs to produce high-quality practicing engineers with an eye on the changing trends in our fields. The uniqueness of our small university, small town setting in conjunction with a large engineering program is a significant draw for many of our prospective undergraduate students seeking social mobility. We aim to provide higher visibility to our undergraduate programs to highlight their distinctive aspects.

Strategic Initiatives

1. Support students in our unique undergraduate degree programs by:
    a. Enhancing experiential learning opportunities

b. Making CEGE a safe place to learn and work

Strategic Objective – Growing and Strengthening Graduate Programs

Graduate education is a vital component of our department's programs. Graduate students are the engine for our research programs that enhance visibility and provide tangible benefits to society and a source of pride to our stakeholders. In addition, many of our students need the high-level theory and skills that are only attainable through graduate education for licensure and career advancement. Supporting these goals, we aim to further develop all our civil, environmental, and geospatial engineering graduate programs to provide focused, high-level educational experiences and to meet the goals laid out in the Michigan Tech Portrait 2045.

Strategic Initiatives

1. Support students in our unique graduate degree programs by:
    a. addressing societal and technological challenges facing the civil, environmental, and geospatial engineering professions.
    b. enhancing programs to support graduate student personal and professional development
    c. Making CEGE a safe place to learn and work.

Strategic Objective – Strong and Sustainable Research Programs

Increase research in alignment with the College of Engineering and Michigan Technological University strategic plans. To achieve these goals, building and reinforcing key contacts within industry, and state and federal funding agencies will be necessary.

Strategic Initiatives

A. Address interdisciplinary and cross-cutting issues relevant to the civil, environmental, and geospatial engineering profession.
B. Advance fundamental knowledge by cultivating industry, state, and federal funding agency partnerships for collaborative work.
C. Strategically support research productivity and quality

People

Strategic Objective – Faculty and Staff Development

CEGE Department faculty and staff are the most critical component for providing exceptional educational programs and advancing our fields through research and service. The Department must maintain and develop the level of quality of these human resources to assure our programs' ability to attract students and funding as well as our standing with alumni and industry in an

evolving global environment. The Department must also further develop a culture where all faculty and staff feel their contribution (teaching, research, service, and mentoring) directly supports the CEGE Department's mission and vision.

Strategic Initiatives

A. Faculty and Staff mentoring and professional development
B. Flagship CEGE Seminar experience
C. Establish additional endowed professorships
D. Shared governance and service model
E. Make CEGE a safe place to learn and work

Strategic Objective – Alumni Engagement

CEGE alumni are the most visible product of our programs and source of tremendous pride. We will develop and further connect with our alumni base and friends of the Department to enhance experiences of current and future students through mutual collaboration and life-long connections.

Strategic Initiatives

A. Inspire alumni giving
B. Re-engage alumni
C. Strategically engage future alumni

Places

Strategic Objective – Facilities Improvement

The CEGE Department acknowledges the space and equipment allotted to us as significant resources. There exist limitations in spaces, specifically Dillman Hall, to be effective and safe to learn and work, and to advance the CEGE Department toward our strategic program goals. Efforts to remedy this situation are, therefore, critical.

Strategic Initiatives

1. Fundraising initiatives to advance CEGE programs by:
    a. Modernizing or replacing Dillman Hall
    b. Upgrading all Lab equipment