

# STRATEGIC PLAN 2025-2030 - CIVIL ENGINEERING

## VISION:

To be a leading Civil Engineering program recognized for producing industry-ready diverse professionals, fostering innovation in sustainable urban development, and transforming our communities through education and engagement.

## MISSION:

To educate and empower students with the knowledge, skills, and ethical values necessary to become successful leaders in the Engineering industry, while fostering research, scholarship, diversity, and community partnerships that contribute to sustainable urban development.

## GOALS AND OBJECTIVES:

### 1. Enhance Academic Excellence:

- **Objective 1:** Develop and update the undergraduate and graduate curriculum to align with industry trends, research outcomes, and best practices, integrating sustainability and technology.
- **Objective 2:** Implement outcome-based assessment methods to ensure program effectiveness and student learning outcomes.
- **Objective 3:** Engage faculty in research, publication, and professional development relevant to the various areas of Civil Engineering that benefit students.

### 2. Industry Partnerships and Experiential Learning:

- **Objective 1:** Establish strong connections with industry stakeholders to provide students with real-world experiences through internships, site visits, and guest lectures.

- **Objective 2:** Collaborate with industry partners to co-create relevant projects and ensure that the program meets industry needs and standards.

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### 3. Students Success, Alumni, Industry, and Community Engagement:

- **Objective 1:** Implement mentorship programs connecting current students with successful alumni, industry (engineering firms, government agencies, and utilities), and community.
- **Objective 2:** Offer career development services, including resume workshops, job fairs, and networking events to enhance job placement and career growth for graduates.

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### 4. Diversity, Equity, and Inclusion:

- **Objective 1:** Foster a diverse and inclusive environment that values and respects the unique perspectives and backgrounds of all students and faculty.
- **Objective 2:** Implement initiatives to attract and support underrepresented groups within the Civil Engineering program.

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### 5. Community Engagement and Outreach:

- **Objective 1:** Establish partnerships with local communities to engage students in projects that contribute to development and address community needs.
- **Objective 2:** Promote community awareness of the program's activities and opportunities for collaboration.

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### 6. Technology Integration

- **Objective 1:** Incorporate emerging technologies into the curriculum and lab works to enhance student skills and knowledge.
  - **Objective 2:** Collaborate with industry partners to provide access to the latest software and technologies used in the Civil Engineering areas.
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## IMPLEMENTATION AND TIMELINE:

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### Year 1 and 2 (FY 2024/25 to 2026/27)

- Conduct a comprehensive curriculum review with industry inputs and focus at current trend and emerging technologies in Civil Engineering areas to determine what should be added or replaced.
- Initiate the faculty mentorship programs and encourage involvement in the College of Engineering faculty development program.
- Expand industry seminar on the expertise of the civil and construction industries.
- Create an annual department newsletter to disseminate the accomplishments of the CEEC department and establish a fundraising initiative.

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### Year 3 and Year 4 (FY 2026/27 to 2028/29)

- Implement curriculum updates and assessment to incorporate current and emerging technologies used in Civil Engineering areas.
- Expand industry partnerships to include small, minority-, and women-owned businesses to enhance hands-on experiences for students.
- Launch on-line mentorship programs in collaboration with ASCE Young Member Forum to match undergraduate potential industry mentors.
- Expand alumni and industry activities by leveraging digital footprint and in-person campus contacts.

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### Year 5 (2028/2029)

- Evaluate the program's success in achieving stated objectives and make necessary adjustments.
- Continue to foster relationship with industry, alumni, and the community to strengthen program sustainability and growth.

## KEY PERFORMANCE INDICATORS (KPI):

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### Related to Goal 1

- Revised curriculum based on industry inputs. Increased recruitment, retention, and graduation.
- Course performance assessment data target. Job placement rates for graduates. Student and employer satisfaction surveys.
- Research publication and grant acquisition metrics.

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### Related to Goal 2

- Student internship experience/opportunities within relevant profession.
- The number of students exposed to Civil Engineering practice.
- The number of senior design projects in collaboration with industry partners.

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### Related to Goal 3

- The numbers of mentors and student pairing.
- Participation in career development services, including resume workshops, job fairs, and networking events.

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### Related to Goal 4

- Participation in training/workshop relevant to diversity and inclusion.
- The numbers of interactions and scholarships with underrepresented students.
- Diversity and inclusion statistics within the program.

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### Related to Goal 5

- The number of community-based projects involving faculty and student groups/organizations.
  - The number of faculty interactions with local professional organization chapters.
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## Related to Goal 6

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- The number of opportunities (e.g., courses and workshops) where emerging technologies such as Building Information Modeling (BIM), virtual/real/mixed reality, and other relevant tools are introduced/implemented in collaboration with engineering firms, government agencies, and utilities.

## RESOURCE ALLOCATION:

- Allocate departmental funds for recruitment, assessment, faculty training, and industry interactions.
- Allocate funds for curriculum development and education/research initiatives.
- Initiate faculty strategy to secure large grants and partnerships for special projects and education/research activities.
- Allocate staff resources for program administration, student support services, and community engagement efforts.