

2.0 CRITERION 1 - PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

Program Educational Objectives (PEOs) for Civil Engineering at Enugu State University of Science and Technology (ESUT) should align with the university's vision and mission while considering the specific goals of the civil engineering program.

The vision and mission of Enugu State University of Science and Technology (ESUT) are as follows:

Vision: To be a world-class institution for research, innovation, and technological advancement, providing high-quality education and producing graduates who are globally competitive.

Mission:

- ❖ To provide excellent education and training in science, technology, and related disciplines, fostering intellectual growth and promoting research and innovation.
- ❖ To contribute to the socioeconomic development of Enugu State, Nigeria, and the world at large through the application of science, technology, and innovation.
- ❖ To cultivate a culture of entrepreneurship and promote collaboration between academia, industry, and the community, fostering the development and transfer of technology and knowledge.
- ❖ To develop leaders and professionals who possess the necessary skills, knowledge, and ethical values to address societal challenges and contribute to sustainable development.
- ❖ To engage in cutting-edge research and development activities that address local and global challenges, with a focus on areas of strategic importance and relevance to society.
- ❖ To provide a conducive and inclusive learning environment that promotes critical thinking, creativity, and lifelong learning, preparing students for successful careers and lifelong learning in a rapidly changing world.
- ❖ To promote community engagement and social responsibility, actively participating in the development and improvement of the local community through various outreach programs and initiatives.

Program Educational Objectives (PEOs) are as follows;

PEO 1 Technical Competence: Graduates of the civil engineering program will demonstrate technical proficiency in analyzing, designing, and managing civil engineering systems and infrastructure projects.

PEO 2 Professional Development: Graduates will engage in continuous professional development, keeping up with advancements in the field of civil engineering and pursuing lifelong learning opportunities.

PEO 3 Ethical and Social Responsibility: Graduates will practice civil engineering with a strong sense of ethical responsibility, considering the environmental and societal impacts of their designs and decisions.

PEO 4 Leadership and Teamwork: Graduates will possess effective leadership and teamwork skills, enabling them to lead and collaborate in multidisciplinary projects and teams.

PEO 5 Effective Communication: Graduates will be able to communicate effectively, both verbally and in writing, with different stakeholders, including clients, colleagues, and the general public.

PEO 6 Entrepreneurship and Innovation: Graduates will have the ability to identify and pursue entrepreneurial opportunities in the field of civil engineering while fostering innovative and sustainable solutions.

PEO 7 Professional Engagement: Graduates will actively participate in professional organizations and engage in community service, contributing to the advancement of the civil engineering profession and addressing societal needs.

PEO 8 Global Perspective: Graduates will have an understanding of global issues and cultural diversity, enabling them to work effectively in a globalized and multicultural engineering environment.

PEO 9 Lifelong Learning: Graduates will develop a commitment to lifelong learning and professional growth, adapting to emerging technologies, and evolving engineering practices.

PEO 10 Contribution to Sustainable Development: Graduates will contribute to sustainable development by incorporating environmentally friendly and economically viable practices in their civil engineering projects.

3.0 CRITERION 2- CIVIL ENGINEERING PROGRAMME OUTCOMES (POs)

Program Outcomes POs reflect the vision and mission of ESUT while encompassing the essential knowledge, skills, and attributes that civil engineering graduates should possess. They serve as a guide for curriculum development, teaching methodologies, and assessment strategies to ensure that graduates are well-prepared to meet the challenges of the civil engineering profession and contribute to society. The POs for the programme are follows;

S/No.	Outcomes
PO1	Engineering Knowledge: At the end of the programme, Graduates will have a strong foundation in mathematics, science, and engineering principles, applying this knowledge to analyze and solve civil engineering problems.
PO2	Problem Solving: At the end of the programme, Graduates will demonstrate the ability to identify, formulate, and solve complex civil engineering problems using a systematic and innovative approach.
PO3	Design and Development: At the end of the programme, Graduates will have the skills to design and develop civil engineering systems and infrastructure that meet specified requirements and consider factors such as sustainability, safety, and cost-effectiveness.
PO4	Conduct Investigations: At the end of the programme, Graduates will be able to plan and conduct experiments, as well as analyze and interpret data, to investigate civil engineering problems and make informed decisions.
PO5	Modern Tools Usage: At the end of the programme, Graduates will be proficient in using modern tools, techniques, and software relevant to civil engineering practice, including computer-aided design (CAD), simulation, and analysis tools.
PO6	Professional and Ethical Responsibility: At the end of the programme, Graduates will understand and adhere to professional ethics and responsibilities in civil engineering practice, considering the impact of their work on public health, safety, and welfare.
PO7	Communication Skills: At the end of the programme, Graduates will have effective communication skills, both oral and written, enabling them to present and communicate engineering concepts and designs to diverse audiences.
PO8	Teamwork and Leadership: At the end of the programme, Graduates will possess the ability to work collaboratively in multidisciplinary teams and demonstrate

	leadership qualities while contributing effectively to the accomplishment of common goals.
PO9	Lifelong Learning: At the end of the programme, Graduates will recognize the need for continuous learning and self-improvement, engaging in professional development activities and keeping abreast of advancements in civil engineering.
PO10	Social and Environmental Awareness: At the end of the programme, Graduates will understand the societal and environmental impact of civil engineering projects and demonstrate a commitment to sustainable development, promoting environmentally friendly practices.
PO11	Entrepreneurship and Innovation: At the end of the programme, Graduates will exhibit entrepreneurial skills, identifying and pursuing opportunities for innovation, technological advancements, and sustainable solutions in civil engineering.
PO12	Professional Development: At the end of the programme, Graduates will recognize the importance of professional organizations and engage in activities that enhance their professional growth and contribute to the advancement of the civil engineering field.