

(A) PROGRAM OUTCOMES

Engineering Graduates will be able to:

1. **Engineering Knowledge:** Apply the knowledge of Mathematics, Science, Engineering Fundamentals and an engineering specialization to the solution of complex engineering problems.
2. **Problem analysis:** Identify, formulate, review research Literature, analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and Engineering sciences.
3. **Design/ Development of solutions:** Design solutions for complex Civil engineering problems and design processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. **Conduct Investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. **Modern tool usage:** Create, select and apply appropriate techniques, resources, and **modern** engineering and IT tools including prediction and modeling to complex civil engineering activities with an understanding of the limitations.
6. **The Engineer and society:** Apply reasoning acquired by the contextual knowledge to address societal, health, safety, legal and cultural issues and to bear consequent responsibilities relevant to the professional engineering practice.
7. **Environmental sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. **Communication:** Ability to express ideas clearly and to communicate verbally in writing and make presentations.
11. **Project management and Finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply those to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
12. **Life-Long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

(B) PROGRAM SPECIFIC OUTCOMES (PSOs)

Civil Engineering graduate will be able to -

1. **Prepare** the working drawings and estimates of buildings/ other infrastructure facilities as per the requirements of clients.
2. **Design** the structural elements having adequate factor of safety to withstand the various external forces imposed on it.
3. **Effectively supervise** the construction of buildings/ other infrastructure facilities as per drawings.