The Program Educational Objectives (PEOs):

The Program Educational Objectives (PEOs) of B. Tech. Mechanical Engineering program are:

1. To develop highly competent graduates with strong foundation in science and engineering for successful careers in core mechanical and interdisciplinary industries, higher education and research.
2. To develop graduates who can become entrepreneur/innovators to design and develop system/process/product/service to address social and industrial challenges.
3. To develop graduates with leadership qualities, strong communication skills, professional and ethical values.
4. To develop lifelong learners graduates to excel in their professional career as well as to pursue higher education.

Program Outcomes (POs):

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, research literature, and 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 engineering problems and design system components or 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 modelling to complex engineering activities with an understanding of the limitations.
6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. Environment and 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: Communicate effectively on complex engineering activities with the engineering community and with the society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

11. Project management and finance: Demonstrate knowledge understanding of the engineering and management principles and apply these 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.

Program Specific Outcomes (PSOs):

The following are the program specific outcomes (PSOs):

1. To analyse the problem and create solution by applying engineering knowledge with a multidisciplinary approach.
2. To analyse, interpret and provide solutions to the real life mechanical engineering and its allied problems using engineering software/tools.
3. To work effectively as an individual and in a team to address complex issues by engaging in lifelong learning and following ethical and environmental practices.