PROGRAM EDUCATION OBJECTIVES

(PEOs)

Graduates with in-depth knowledge and sound understanding of principles of Mechanical Engineering with a quest of lifelong learning.

Graduates demonstrating the capacity to assume social, environmental and ethical responsibility in the national and global perspective.

Graduates who can communicate and manage effectively with those inside and outside of Engineering Community.

Graduates with capability to be effective team members and take a leadership role in research, design, innovation, implementation and operation of Mechanical and related systems.
## Washington Accord Graduate Attributes

### PROGRAME LEARNING OUTCOMES

| PLO/WA 1 | **Engineering Knowledge:**  
**Breadth & depth of knowledge** | Apply knowledge of mathematics, natural science, engineering fundamentals and engineering specialization to solution of complex Engineering problems. |
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| PLO/WA 2 | **Problem Analysis:**  
**Complexity of analysis** | Identify, Formulate, Research literature and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences. |
| PLO/WA 3 | **Design/Development of Solutions:**  
**Breadth & uniqueness of engineering problems** | Design solutions for complex engineering problems and design systems, components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal and enviromental considerations. |
| PLO/WA 4 | **Investigation:**  
**Breadth and depth of investigation and experimentation** | Conduct investigations of complex problems using research-based knowledge and research methods including design of experiments, analysis and interpretations of data and synthesis of information to provide valid conclusions. |
| PLO/WA 5 | **Modern Tool Usage:**  
**Level of understanding of the appropriateness of the tool** | Create, select and apply appropriate techniques, Resources and modern engineering and IT tools, including prediction and modeling, to complex engineering problems, with and understanding of the limitations. |
| PLO/WA 6 | **The Engineer and Society:**  
**Level of knowledge and responsibility** | Apply reasoning informed by contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to professional engineering practice and solutions to complex engineering problems. |
| PLO/WA 7 | **Enviroment and Sustainability:**  
**Types of solutions** | Understand and evaluate the sustainability and impact of professional engineering work in the solution of complex engineering problems in societal and enviromental contexts. |
| PLO/WA 8 | **Ethics:**  
**Understanding and level of practice** | Apply ethical principles and commit to professional ethics and responsibilities and norms of engineering pracitce. |
| PLO/WA 9 | **Individual and Team Work:**  
**Role in and diversity of team** | Function effectively as an individual, and as a member or leader in diverse teams and in multi-disciplinary settings. |
| PLO/WA 10 | **Communication:**  
**Level of communication according to type of activities performed** | Communicate effectively on complex engineering activities with the engineering community and with 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. |
| PLO/WA 11 | **Project Management and Finance:**  
**Level of management required for differing types of activity** | Demonstrate knowledge and understanding of engineering management principles and economic decision-making and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments. |
| PLO/WA 12 | **Life-Long Learning:**  
**Preparation for and depth of continuing 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. |