

Programme Outcomes 2017 (2017 Onwards)

- (1) **Engineering Knowledge** - Apply knowledge of mathematics, natural science, engineering fundamentals and an engineering specialization to the solution of complex chemical engineering problems.
- (2) **Problem Analysis** - Identify, formulate, research literature and analyses complex chemical engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.
- (3) **Design/Development of Solutions** - Design solutions for complex chemical engineering problems and design systems, components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.
- (4) **Investigation** - Conduct investigations of complex problems using research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of 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 chemical engineering problems, with an understanding of the limitations.
- (6) **The Engineer and Society** - 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 chemical engineering problems.
- (7) **Environment and Sustainability** - Understand and evaluate the sustainability and impact of professional engineering work in the solution of complex chemical engineering problems in societal and environmental contexts.
- (8) **Ethics** - Apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice.
- (9) **Individual and Team Work** - Function effectively as an individual, and as a member or leader in diverse teams and in multi-disciplinary settings.
- (10) **Communication** - Communicate effectively on complex chemical 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.
- (11) **Project Management and Finance** - 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.
- (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.