

PLO of Faculty of Chemical and Energy Engineering (FCEE): 2005-2016

| FCEE | | | |
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| PLO | FPREE | PLO | FKK |
| | Technical Skills | | Technical Skills |
| 1 | Apply knowledge of mathematics, science, engineering fundamentals, petroleum/nuclear/ chemical and gas engineering principles to the solution of complex engineering problems. | 1 | Ability to apply general knowledge, sciences, chemical engineering principles to solve complex chemical engineering problems |
| 2 | Identify, research relevant literature, formulate and solve complex engineering problems using first principles of mathematics and engineering sciences. | 2 | Ability to investigate, design and conduct experiments, analyze and interpret data, and apply the research skills to solve complex engineering problems |
| 3 | Conduct investigations of complex problems employing appropriate research skills including design of experiments, analysis and interpretation of data and generation of valid conclusions. | 3 | Ability to design a system or process for solving complex chemical engineering problems to meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations. |
| 4 | Design solutions for complex engineering problems and as well as design systems, components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations. | 4 | Ability to inculcate modern computational techniques and skills to solve complex chemical engineering activities. |
| 5 | Develop or utilize appropriate techniques, resources and modern engineering and computational tools to complex engineering activities, with an understanding of the limitations | 5 | Ability to responsibly act as well as response to the societal health, safety, environment, legal and cultural issues that are relevant to the professional chemical engineering practice |
| | Generic Skills | | Generic Skills |
| 6 | Communicate effectively through written and oral modes to all levels of society | 6 | Ability to practice professional chemical engineering knowledge for sustainable development. |
| 7 | Function effectively as an individual, and as a member or leader in diverse teams or multi-disciplinary settings | 7 | Ability to integrate the first principles of mathematics, natural sciences and chemical engineering for solving complex engineering problems through creative, innovative, lateral and critical thinking skills. |
| 8 | Apply reasoning to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to professional engineering practice | 8 | Ability to communicate effectively through written and oral modes to all levels of society. |
| 9 | Explain the impact of engineering solutions in societal and environmental contexts, and incorporate the principles of sustainable development in engineering process and design | 9 | Ability to work independently, and as a member or a leader in a team to manage project in multi-disciplinary environment. |
| 10 | Apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice | 10 | Ability to work ethically according to the norms of chemical - engineering practice. |
| 11 | Recognize the need for and readily engage in independent and life-long learning | 11 | Ability to acquire knowledge and engage in life-long learning. |
| 12 | Apply knowledge of project management and entrepreneurial principles to a multidisciplinary engineering project or business plan development | 12 | Ability to acquire entrepreneurship skills and business insights. |