

### Program Educational Objectives-Program learning Outcomes Connectivity Matrix

	1. <i>Technical proficiency</i> By using basic industrial engineering principles including analytical and systems thinking together with information technologies, our graduates will be able to analyze, design, develop, and identify problems encountered in production, service, and socioeconomic systems, make effective decisions toward solving these problems using, and implement these decisions considering social and ethical responsibilities.	2. <i>Communication skills</i> Our graduates will be able to present their work in writing, orally and visually in a professional manner.	3. <i>Team awareness and leadership</i> Our graduates will be able to lead with awareness of the team and manage interpersonal relationships in multi-disciplinary environments.	4. <i>Continuous development</i> Our graduates will be able to continually improve themselves by acquiring new knowledge and skills.
1. An ability to apply knowledge of mathematics, science, and engineering.	x			
2. An ability to design and conduct experiments, as well as to analyze and interpret data.	x			
3. An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.	x			
4. An ability to function on multidisciplinary teams.		x	x	
5. An ability to identify, formulate, and solve engineering problems.	x			
6. An understanding of professional and ethical responsibility.	x	x	x	
7. An ability to communicate effectively.		x	x	
8. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.	x			
9. A recognition of the need for, and an ability to engage in life-long learning.				x

10. A knowledge of contemporary issues.		x	x	x
11. An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.	x			x
12. An ability to design, develop, implement, and improve integrated systems that include people, materials, money, information, equipment and energy.	x			x
13. The mathematical proficiency, analytical thinking, and knowledge of quantitative methods and experimental practices to develop, solve and analyze the results obtained from quantitative models of complex processes or systems.	x			x
14. An ability to take the lead in identifying industrial engineering problems in an organization, forming a multi-disciplinary team of professionals with relevant knowledge and skills, coordinating the team's function, and delivering appropriate results and executive recommendations.	x	x	x	x
15. An entrepreneurial spirit and leadership skills.		x	x	x