Course ILOs for Approved Common Core Courses (Subject Code: **ENGG**)

Course Code, Title and Course ILOs	Weighting	Area(s)
ENGG 1110 **Engineering Solutions to Grand Challenges of the 21st Century**		S&T
CILO 1 Identify the key issues involved in two real-world engineering problems by obtaining information from experts and the literature	NA	
CILO 2 Analyze these problems from multiple dimensions and angles including feasibility, scalability, and sustainability	NA	
CILO 3 Suggest and evaluate solutions to these problems by working collaboratively	NA	
CILO 4 Present and defend their solutions orally and in writing	NA	
ENGG 1130 **The Impact and Value of Technology Innovation**		S&T
CILO 1 Research the scientific and engineering basis of technology innovation	NA	
CILO 2 Articulate how commercial and social value is created through technology innovation	NA	
CILO 3 Comprehend why cycles of success and failure are essential for innovation	NA	
ENGG 1150 **Information Technology Revolution: Past, Present and Future**		S&T
CILO 1 Identify the key advances in information technology and related enabler in various technology	NA	
CILO 2 Understand how advances in information technology are applied to different fields and the revolutionary changes they brought to those fields	NA	
CILO 3 Evaluate the key benefits and potential drawback or issues underlying these changes	NA	
CILO 4 Recognize the future trend in information technology development and possible benefits and issues associated with these development trends	NA	
ENGG 1200 **Engineering Team Design Experience: Airship**		S&T
CILO 1 Analyze and describe the design of DC and logic circuits as used in the operation of a microcontroller, and create programs in Java for use on Android devices with increasing complexity and for use in the class project	20%	
CILO 2 Describe, calculate, and quantify the action of forces and other physical quantities on systems similar that used in the class project	10%	
CILO 3 Apply an engineering design approach to: generate ideas, model, analyze, predict and build an innovative object of engineering interest taking into consideration both societal and economic impact	30%	
CILO 4 Demonstrate appropriate knowledge and behavior for effective and ethical membership on a technical team	10%	
CILO 5 Communicate effectively with others orally, in writing and by use of sketches/drawings	20%	
CILO 6 Explore possible innovative engineering solutions via peer learning and self-initiated learning processes	10%	
ENGG 1300 **Design Thinking for Health Innovation**		S&T
CILO 1 State and be able to explain the process modules of design thinking	15%	

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CILO 2 Apply the design thinking in solving real-world health issues in the society	20%	
CILO 3 Work and communicate effectively in a multi-disciplinary team	25%	
CILO 4 Generate innovative ideas, assess and perform iterative prototyping cycles to decide the best solution and implement ideas into innovations	25%	
CILO 5 Learn professional and technical knowledge on design and innovation processes	15%	

NA : The course offering unit has not assigned any weighting for the course ILOs.

Updated as at 12 August 2019