

At Isra University ABET student learning outcomes are used in all criteria , these outcomes are listed in the table below

Table(1.1): **ABET Student learning outcomes (SLO's)**

1	An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2	An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3	An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
4	An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
5	An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
6	Understand why regular maintenance is important for trouble free operation
7	An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

The relationship between Program Educational Objectives and Student Learning Outcomes are shown in the table below

Table (1.2): **The relationship between Program Educational Objectives and Student learning Outcomes**

No.	Program Educational Objectives (PEOs)	ABET Student learning Outcomes for CE Program						
		SLO1	SLO2	SLO3	SLO4	SLO5	SLO6	SLO7
PEO1	To produce professionally competent Civil Engineers, capable of applying the knowledge of contemporary Science and Technology, to meet the challenges in the field of Civil Engineering and to serve the Society.	√	√		√			√
PEO2	To prepare the Civil Engineering graduates to work in industry, government or other organizations in different capacities involving individual and teamwork.		√	√	√	√		
PEO3	To inculcate among the students the sense of ethics, morality, creativity, leadership, professionalism, self-confidence, and independent thinking.		√		√			
PEO4	To impart the training in problem visualization, surveying, analysis and planning for its solution.	√					√	
PEO5	To impart training for development of laboratory and design skills, communication skills and skills for software and other modern tool usage among the students.	√					√	
PEO6	To inculcate in the students the ability to take up the innovative research projects and to conduct investigations of complex Civil Engineering problems using research-based methods, thus urging	√				√	√	√

	them for higher studies							
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The relationship between Program Learning Objectives and Student Learning outcomes are shown in the table below.

Table (1.3): The relationship between Program Learning Objectives and Student Learning outcomes

No.	Program Learning Objectives (PLO)	ABET Student- Learning Outcomes						
		SLO1	SLO2	SLO3	SLO4	SLO5	SLO6	SLO7
a.	Knowledge of the basics of mathematics, science and engineering with deep knowledge of civil engineering.	√						
b.	Achieve and identify engineering problems, social knowledge, health, safety, legal, management, sustainability and cultural issues and the consequent responsibility towards civil engineering.	√	√					
c.	Ability to apply knowledge in mathematics, science and engineering.	√						
d.	Ability to design, conduct experiments, analyses and interpret data.	√						
e.	The ability to design a system, component or process to meet the needs required within the constraints of real economic, environmental, social, political and moral in addition to the requirements of health, safety, construction and sustainability.		√		√			
f.	Ability to identify, formulate and solve engineering problems.	√						
g.	Extensive education necessary to explain the impact of engineering solutions in a comprehensive economic, environmental and social context.		√		√			
h.	Ability to use the techniques, skills and modern engineering tools for engineering practices.				√		√	
i.	Ability to work with multidisciplinary teams.					√		
j.	Apply knowledge of basic technical areas appropriate to civil engineering including but not limited to structural, geotechnical, environmental, transportation and water resources engineering.				√			√
k.	11. Ability to clarify basic concepts in management, business, public policy and leadership.		√		√			
l.	Realize the need for lifelong learning and possess the competence to do so.							√
m.	Understanding and adhering to professional ethics, and the social, cultural and environmental responsibilities of civil engineers.		√					
n.	Ability to communicate effectively in written or oral							√

	forms.								
o	Ability to clarify the importance of professional licensure.								√

A. Relationship between Program Learning Objectives (PLO) to Program Educational Objectives

Table(1.2): Relationship between Program Learning Objectives (PLO) to Program Educational Objectives

No.	Program Educational Objectives (PEOs)	Program learning objectives														
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
PEO1	To produce professionally competent Civil Engineers, capable of applying the knowledge of contemporary Science and Technology, to meet the challenges in the field of Civil Engineering and to serve the Society.	√	√			√	√	√				√				
PEO2	To prepare the Civil Engineering graduates to work in industry, government or other organizations in different capacities involving individual and teamwork.		√	√							√	√				
PEO3	To inculcate among the students the sense of ethics, morality, creativity, leadership, professionalism, self-confidence, and independent thinking.					√			√			√		√		√
PEO4	To impart the training in problem visualization, surveying, analysis and planning for its solution.			√	√		√				√	√				
PEO5	To impart training for development of laboratory and design skills, communication skills and skills for software and other modern tool usage among the students.					√			√			√				√
PEO6	To inculcate in the students the ability to take up the innovative research projects and			√					√		√	√				

	to conduct investigations of complex Civil Engineering problems using research-based methods, thus urging them for higher studies																	
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