

Civil Engineering BS Assessment Plan

Table 3-1. Assessment plan for various SLOs

Methods used to assess the SLOs	Student Learning Outcomes (SLOs)										
1. Senior Survey	a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.
2. Alumni Survey											
3. Employer Survey											
4. SO Assessment Exam											

Table 3-2. Detailed course-wise plan for SLO Assessment Exam for core courses

Student Learning Outcomes (SLOs)	CE 201	CE 206	CE 214	CE 214 L	CE 301	CE 302	CE 308	CE 324	CE 324 L	CE 325	CE 325 L	CE 377	CE 401	CE 408	CE 418	CE 428	CE 428 L	CE 430	CE 432	CE 441	CE 468	CE 494	CE 494 L	
a. An ability to apply knowledge of mathematics, science and engineering	F14 F16 F18				F14 F16 F18									F14 F16 F18										
b. An ability to design and conduct experiments, as well as to analyze and interpret data.				F14 F16 F18					F14 F16 F18					F14 F16 F18										
c. 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															F14 F16 F18									F14 F16 F18
d. An ability to function on multidisciplinary teams													S15 S17 S19											S15 S17 S19
e. An ability to identify, formulate, and solve engineering problems						S15 S17 S19				S15 S17 S19													S15 S17 S19	
f. An understanding of professional and ethical responsibility													S15 S17 S19									S15 S17 S19		
g. An ability to communicate effectively				F15 F17 F19							F15 F17 F19													F15 F17 F19
h. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and social context													F15 F17 F19											F15 F17 F19
i. A recognition of the need for , and an ability to engage in life-long learning																		F15 F17 F19						F15 F17 F19
j. A knowledge of contemporary issues													S16 S18 S20											S16 S18 S20
k. An ability to use techniques, skills, and modern engineering tools necessary for engineering practice		S16 S18 S20										S16 S18 S20							S16 S18 S20					

Table 3-3. Detailed course-wise plan for SLO Assessment Exam for elective courses

Student Learning Outcomes (SLOs)	CE 411	CE 431 L	CE 435	CE 441 L	CE 436	CE 463	CE 463 L	CE 465	CE 466	CE 467	CE 481	CE 482	CE 493	CE 496	GN 100
a. An ability to apply knowledge of mathematics, science and engineering			F16 F18									F16 F18			F16 F18
b. An ability to design and conduct experiments, as well as to analyze and interpret data.		F16 F18													
c. 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						F16 F18									
d. An ability to function on multidisciplinary teams									S15 S17 S19						
e. An ability to identify, formulate, and solve engineering problems	S15 S17 S19				S15 S17 S19										
f. An understanding of professional and ethical responsibility								S15 S17 S19						S15 S17 S19	
g. An ability to communicate effectively		F15 F17 F19													
h. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and social context												F15 F17 F19			
i. A recognition of the need for , and an ability to engage in life-long learning						F15 F17 F19									
j. A knowledge of contemporary issues											S16 S18 S20				
k. An ability to use techniques, skills, and modern engineering tools necessary for engineering practice				S16 S18 S20											

Table 3-4. Frequencies of qualitative assessments of SLOs

Method of Assessment	Frequency of Assessment (minimum)
Senior Survey	Once a year
Alumni Survey	Once in 2 years
Employer Survey	Once in 2 years

Table 3-5. Frequency of quantitative and qualitative assessment of SLOs

Student Learning Outcomes (SLOs)	F14	S15	F15	S16	F16	S17	F17	S18	F18	S19	F19	S20
a. An ability to apply knowledge of mathematics, science and engineering	AE	SS		SS	AE	SS		SS	AE	SS		SS
b. An ability to design and conduct experiments, as well as to analyze and interpret data.	AE	SS		SS S	AE	SS		SS S	AE	SS		SS S
c. 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	AE	SS		SS	AE	SS		SS	AE	SS		SS
d. An ability to function on multidisciplinary teams		AE SS		SS ES AS		AE SS		SS ES AS		AE SS		SS ES AS
e. An ability to identify, formulate, and solve engineering problems		AE SS		SS		AE SS		SS		AE SS		SS
f. An understanding of professional and ethical responsibility		AE SS		SS		AE SS		SS		AE SS		SS
g. An ability to communicate effectively		SS	AE	SS		SS	AE	SS		SS	AE	SS
h. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and social context		SS	AE	SS		SS	AE	SS		SS	AE	SS
i. A recognition of the need for , and an ability to engage in life-long learning		SS	AE	SS ES AS		SS	AE	SS ES AS		SS	AE	SS ES AS
j. A knowledge of contemporary issues		SS		AE SS		SS		AE SS		SS		AE SS
k. An ability to use techniques, skills, and modern engineering tools necessary for engineering practice		SS		AE SS		SS		AE SS		SS		AE SS

* AS: Alumni Survey; ES: Employer Survey; SS: Senior Survey; AE: Assessment Exam