

Civil Engineering BS Curriculum Map

Table 2-2. Relationship between CE SLOs and corresponding CEE core courses (I: Initiated; R: Reinforced; E: Enhanced)

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	I		I	I	R	R	R	R	R	R	R	R	R	E	E	R	R	E	E	E	E	E	E	E
b. An ability to design and conduct experiments, as well as to analyze and interpret data.				R					E		E	E					E							
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														R/ E	R/ E			R/ E	R/ E	R/ E		E	E	
d. An ability to function on multidisciplinary teams													R											E
e. An ability to identify, formulate, and solve engineering problems					I	I	I	R		R				E	E	R		E	E	R	E	E	E	E
f. An understanding of professional and ethical responsibility													R							R	E			
g. An ability to communicate effectively				I					R		R	R	R				R		E					E
h. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and social context													R							R	E			E
i. A recognition of the need for , and an ability to engage in life-long learning													R	R	R			R	R	R	E			E
j. A knowledge of contemporary issues													R							R				E
k. An ability to use techniques, skills, and modern engineering tools necessary for engineering practice		I		I					R		R	R					R		E					E

Table 2-3. Relationship between CE SLOs and corresponding CEE elective courses (I: Initiated; R: Reinforced; E: Enhanced)

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	E	E	E		E	E	E		E	E	E	E	E		I
b. An ability to design and conduct experiments, as well as to analyze and interpret data.		E		R			E								
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			E			E					E	E	E		
d. An ability to function on multidisciplinary teams									E	E					I
e. An ability to identify, formulate, and solve engineering problems	E		E		E	E							E		
f. An understanding of professional and ethical responsibility								E						R	
g. An ability to communicate effectively		E		R			E							R	
h. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and social context								E			E	E			
i. A recognition of the need for , and an ability to engage in life-long learning						E		E							
j. A knowledge of contemporary issues											E	E	E		
k. An ability to use techniques, skills, and modern engineering tools necessary for engineering practice		E		R		E									I