Majmaah University

Deanship of Quality and Skills Development

عمادة الجودة وتطوير المهارات
Deanship of quality and skills development

جامعة المجمعة
Majmaah University

College: Engineering   Department: Civil and Environmental Engineering   Program: Civil Engineering   **Code MUP12**

Student Learning Outcomes to Courses Matrix (X Matrix) *ABET*

			Student Learning Outcomes										
			a	**b**	**c**	**d**	**e**	**f**	**g**	**h**	**i**	**j**	**k**
Courses	1	Differential Calculus (Math 105)	X										
	2	Physics-1 (Phy 103)	X										
	3	Fundamental of Eng. Technology (GE 101)		X	X								
	4	Fundamental Engineering Drawing (GE102)											
	5	Engineering Mechanics (GE 103)	X	X									
	6	Integral Calculus (Math 106)	X										
	7	Algebra and Analytical Geometry (Math 107)	X										
	8	Engineering Mechanics (Dynamics) (GE 108)	X				X						
	9	Engineering Chemistry (GE 105)	X										
	10	Engineering Geology (CE 101)		X		X		X		X	X	X	
	11	Civil Engineering Drawing (CE 102)					X					X	X
	12	Differential Equations (Math 204)	X										
	13	Soil Mechanics and Foundation Eng. 1 (CE 210)	X	X			X	X	X				X
	14	Structural Analysis 1 (CE 214)	X	X			X	X	X				
	15	Hydraulics 1 (CE 240)	X	X		X	X					X	
	16	Surveying 1 (CE 370)	X	X		X	X	X		X			X
	17	Statistics and Probability (Stat 201)	X										
	18	Computer programming for Civil (CEN 209)	X				X						X
	19	Reinforced Concrete Design 1	X		X		X	X	X	X			X
	20	Properties and Strength of Materials 1 (CE212)	X	X		X	X		X	X			X

			**Student Learning Outcomes**
			a	**b**	**c**	**d**	**e**	**f**	**g**	**h**	**i**	**j**	**k**
	21	Structural Analysis 2 (CE 215)	x				x	x			x		x
	22	Hydraulics 2 (CE 241)	x	x	x	x	x					x	x
	23	Engineering Report Writing (GE 306)	x			x		x	x		x		
	24	Soil Mechanics and Foundation Eng. 2 (CE 311)	x	x	X	x		x	x				x
	25	Environmental Engineering 1 (CE 360)	x	x		x	x	x	x	x		x	x
	26	Water Supply and Sewage Eng. (CE 362)	x	x	X	x	x	x	x				x
	27	Surveying 2 (CE 371)	x	X	x	x	x						x
	28	Highway Engineering-1 (CE 380)	x	x				x					x
	29	Numerical Methods (Math 254)	x				x						
	30	Properties & Strength of Materials 2 (CE 313)	x	x	x		x	x	x				x
	31	Structural Analysis 3 (CE 316)	x				x	x	x				x
	32	Reinforced Concrete Design 2 (CE 318)	x		x	x	x	x	x	x			x
	33	Steel Structures Design (1) (CE 320)	x	x				x	x				x
	34	Engineering Economics (GE 407)				x	x	x		x	x	x	
	35	Computer Application in Structure (CE 425)	x	x			x		x	x	x		x
	36	Reinforced Concrete (3) (CE 419)	x		x	x	x	x	x	x	x		x
	37	Steel Structures Design (2) (CE 421)	x	x		x	x	x	x		x		x
	38	Senior Design Project (1) (CE 498)	x	x	x			x	x	x	x	x	x
	39	Engineering Project Management (GE 408)				x	x	x	x	x	x	x	x
	40	Methods and Equipments (CE 422)	x	x	x		x	x	x				x
	41	Contracts & Specifications (CE 423)			x	x	x	x	x	x	x		
	42	Buildings Construction (CE 424)	x	x	x	x	x	x	x	x		x	x
	43	Senior Design Project (2) (CE 499)	x	x	x	x	x	x	x	x	x	x	x

<mark>*CE Student Learning outcomes*</mark>: a-k

Domain	Student Learning Outcomes
a	An ability to apply Knowledge of mathematics, science and engineering
b	An ability to design and conduct experiments, analyze and interpret data
C	An ability to design a system, component or process to meet desired needs within realistic constraints
d	The ability to function on multidisciplinary teams
e	An ability to identify, formulate, and solve engineering problems
f	An understanding of professional and ethical responsibility
g	An ability to communicate effectively
h	The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental and societal context
i	A recognition of the need for and an ability to engage in lifelong learning
j	A knowledge of contemporary issues
k	Ability to use the techniques, skills, and modern engineering tools necessary for engineering practice

Note: College of Engineering is following ABET