

## BS Computer Engineering Program

### Courses to PLO Mapping

[illegible]

2 <sup>nd</sup>	CE113	Object Oriented Programming	C2	C3	C3									
	CE113L	Object Oriented Programming Laboratory		P3	P4						A3			
	CE104	Discrete Structures	C2	C3	C3									
	EE100	Circuit Analysis	C2	C3										
	EE100L	Circuit Analysis Laboratory		P1	P3							A3		
	MA214	Complex Variables and Transforms	C1, C2	C2, C3, C4										
	EL271	Expository writing										C2,C3, C4		
3 <sup>rd</sup>	CE215	Data Structures and Algorithms	C3	C2	C3									
	CE215L	Data Structures and Algorithms Laboratory			P3		P2				A3			
	CE223	Digital Logic Design	C2	C2, C3	C3									
	CE223L	Digital Logic Design Laboratory			P3		P2					A2		
	EE286	Electronic Devices and Circuits	C2	C3		C3								

	EE286L	Electronic Devices and Circuits Laboratory				P2					A2		P3	
	MA106	Differential Equations	C1,C2, C3	C4, C5, C6										
	HU118 / HU215	Islamic Studies / Ethics *								C1, C3				C2
4 <sup>th</sup>	CE224	Computer Organization and Assembly Language	C3	C4	C4									
	CE224L	Computer Organization and Assembly Language Laboratory	P2		P3						A2			
	CE216	Database Management Systems	C2	C3	C3									
	CE216L	Database Management Systems Laboratory			P3		P4				A2			
	MA201	Linear Algebra	C2, C3	C4	C3									
	MA221/ MA221L	Numerical Analysis and Computation	C3	C4	C3									
	HU405	Ideology and Constitution of Pakistan						C1, C2						C3, C4
	HU411	Civics and Community Engagement						C3, C4	C2, C4					C2, C3
5 <sup>th</sup>	CE332	Operating Systems	C2	C3	C3	C3								

	CE332L	Operating Systems Laboratory			P3		P3				A2		
	CE337	Computer Communication and Networks	C2	C4	C3						A2		
	CE337L	Computer Communication and Networks Laboratory					P2				A2	P3	
	CE362	Software Engineering			C3					C2			C4
	EE235	Signals and Systems	C2, C3	C3									
	EE235L	Signals and Systems Laboratory					P4				A3	P5	
	MT203	Probability Methods in Engineering	C1	C3, C4									
	HU407	Community Service Learning						C1, C3					C4
6 <sup>th</sup>	CE323	Microprocessors and Interfacing	C2, C3		C3		C4						
	CE323L	Microprocessors and Interfacing Laboratory					P3				A2	P3	
	EE338	Digital Signal Processing	C3	C3	C4								
	EE338L	Digital Signal Processing Laboratory			P5		P5				A3		

	CE346	Digital Image Processing		C3	C4				C3				A3	
	CE346L	Digital Image Processing Laboratory	P3		P3							A2		
	MT467	Applied Robotics	C2	C3			C3							
	EM436	Engineering Management & Entrepreneurship					C2			C3		C3		
	CE497	Final Year Project I	C3	C4		C5		C6						
7 <sup>th</sup>	CE349	Cloud and Distributed Computing	C2	C3	C4									
	CE349L	Cloud and Distributed Computing Laboratory					P5				A2	A2		
	CE425	Digital System Design	C3		C3	C4								
	CE425L	Digital System Design Laboratory			P3		P3				A2			
	CE352	Machine Learning	C1	C3	C3		P3							
	CE352L	Machine Learning Laboratory			P3		P3		A3		A2			
	HU314	Contemporary International Relations						C1						C2,C3

	CE498	Final Year Project II			P4	C5	P6					A4		
8 <sup>th</sup>	CE454	Big Data Analysis	C2	C4		C3								
	CE454L	Big Data Analysis Laboratory												
	EE476	Wireless Communication	C2,C 3	C2					C2	C2				
	EM438	Engineering Project Management								C2	A2		C2	
	MT302	Professional Ethics								C2	C3			C4
	CE499	Final Year Project III			P4			C6	C5	A5	A3	A4	A4	A5
	MT409	Occupational Health and Safety	C1	C2										
			43	39	31	10	17	10	5	7	16	14	7	11