














BACHELOR OF SOFTWARE ENGINEERING FOR FALL 2024 & ONWARD

Course Curriculum



Semester 1						
No	Code	Title	Credit Hours	Related SDG	Pre Requisite	Contents
1	CS-110	Fundamentals of Computer Programming	3+1	4,9		
2	HU-127	Ideology and Constitution of Pakistan.	2+0	1 to 17		
3	MATH-101	Calculus & Analytical Geometry	3+0	4,8,9,16		
4	MATH-161	Discrete Mathematics	3+0	4,9		
5	HU-114	Functional English	3+0	4		
6	PHY-102	Applied Physics	2+1	4,9,12,15		

7		Total CHs	16+2=18			
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Semester 2						
No	Code	Title	Credit Hours	Related SDG	Pre Requisite	Contents
1	EE-122	Computer Architecture and Logic Design	3-1	4		
2	ME-105	Workshop Practice	0+1	4,8,9,11,12		
3	ME-109	Engineering Drawing	0+2	4,8,9,11,16		
4	CS-212	Object Oriented Programming (OOP)	3+1	1,2,4,9,16	CS-114 / CS-110	
5	OHS-101	Occupational Health and Safety	1-0	3,4,6,13		
6	ENGL-104	Expository Writing	3+0	4	HU-114	
7	MATH-121	Linear Algebra and ODEs	3+0	4,8,9,16		

No	Code	Title	Credit Hours	Related SDG	Pre Requisite	Contents
1	SE-211	Software Design and Architecture	2-1	4	SE-200	
2	CS-251	Design & Analysis of Algorithms	3+0	4,9,11,12	CS-250	
3	MATH-232	Complex Variables and Transforms	3+0	4,16		
4	CS-330	Operating Systems	3+1	4,9,11,12	CS-250/CS-114 Fundamentals of Programming	
5	MATH-352	Numerical Methods	2+1	4,9	MATH-111	
6	HU-XX X	Islamic Studies/ Ethics	2+0			
7		Total CHs	15+3=18			

Semester-5						
No	Code	Title	Credit Hours	Related SDG	Pre Requisite	Contents

1	SE-31 5	Cloud Computing	2-1	4,9		
2	SE-31 4	Software Construction	2-1	4,9	CS-250	
3	XX-XX X	Management Science Elective – I	3+0			
4	XX-XX X	Engineering Elective – I	3-1			
5	XX-XX X	MDEE – I	2-1			
6	XX-XX X	Sociology Elective – I	2+0			
7		Total CHs	14+4=18			

Semester-6					
No	Code	Title	Credit Hours	Related SDG	Pre Requisite
1	SE-320	Formal Methods	3+0	4,9	SE-200
2	SE-321	Software Quality Engineering	3+0	4,12	SE-200
3	SE-430	Software Project Management	3+0	4,8,12	SE-200
4	CS-26 1	Human Computer Interaction	2-1	4,9	

5	XX_XX X	Management Science Elective – II	2+0		
6	XX-XX X	Engineering Elective-II	3-X		
7		Total CHs	16+1+X=1 7+X		

Semester-7

No	Code	Title	Credit Hours	Related SDG	Pre Requisite
1	CS-484	Information Security	3-0	4,8,9	
2	SE-498	Final Year Design Project-1	0+2	1 To 17	
3	XX-XX X	Engineering Elective – III	3-X		
4	XX-XX X	MDEE – II	3+0		
5	XX-XX X	Sociology Elective – II	2+0		
6		Total CHs	11+2+X=13 +X		

Semester-8

No	Code	Title	Credit Hours	Related SDG	Pre Requisite
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1	CCE-401	Civic and Community Engagement	1+1	4,11	
2	SE-499	Final Year Design Project- II	0+4	1 to 17	SE-498 Senior Project-I
3	XX_XX X	Engineering Elective – IV	3-1		
4	XX_XX X	Engineering Elective – V	3-1		
5		Total CHs	7+7=14		
6		Grand Total	107+27+X=134+X		

IN THE UG PROGRAM