

BACHELOR PROGRAM
CIVIL ENGINEERING
2023-2024

Study plan for B.Sc. Civil Engineering

UNIVERSITY OF NIZWA														
BACHELOR IN CIVIL ENGINEERING														
C – Credit Hours, L-Lecture contact hours, P – Practical contact hours														
YEAR 1			SUMMER	CODE	COURSE			C	L	P				
				MATH116	Pre Calculus			4	3	2				
				ENGL150	English Language-I			3	3	0				
							7	6	2					
	FALL	CODE	COURSE	C	L	P	SPRING	CODE	COURSE	C	L	P		
		ENGN101	Introduction to Engineering	2	2	0		MATH212	Calculus-II	3	2	2		
		MATH211	Calculus-I	4	3	2		ENGN103	Engineering Drawing	2	1	2		
		ENGL152	English Language-II	3	3	0		CHEM107	Fundamentals of chemistry	4	3	2		
		COMP101/L	Computer Skills	3	2	2		HIST150	Islamic Civilization	3	3	0		
		PHYS101	General Physics-I	4	3	2		CIVL211	Statics	3	3	0		
					16	13		6				15	12	6
	YEAR 2			SUMMER	CODE	COURSE			C	L	P			
STAT105					Statistics for Engineering			3	2	2				
ENGL155					Communication Skills			3	3	0				
					6	5	2							
FALL		CODE	COURSE	C	L	P	SPRING	CODE	COURSE	C	L	P		
		MATH312	Differential Equations for Engineers	3	2	2		ARAB100	Arabic Language-I	3	3	0		
		CIVL215	Civil Engineering Drawing	2	0	4		CIVL221	Solid Mechanics	3	3	0		
		CIVL212	Civil Engineering Materials	3	2	2		CIVL241	Environmental Engineering	3	3	0		
		CIVL216	Dynamics	2	2	0		CIVL214	Geomatic Engineering	3	2	2		
		CIVL213	Fluid Engineering Mechanics	3	2	2		CIVL321	Structural Analysis-I	3	2	2		
		MNGT100	Entrepreneurship creativity and innovation	3	2	2								
					16	10		12				15	13	4
YEAR 3			SUMMER	CODE	COURSE			C	L	P				
				ARAB101	Arabic Language-II			3	3	0				
				COMP151L	Introduction to Algorithm & Programming			4	3	2				
							7	6	2					
	FALL	CODE	COURSE	C	L	P	SPRING	CODE	COURSE	C	L	P		
		CIVL332	Geotechnical Engineering-I	4	3	2		CIVL431	Geotechnical Engineering-II	3	3	0		
		CIVL342	Hydrology & Hydraulics	3	3	0		CIVL421	Structural Design-II	3	3	0		
		CIVL322	Structural analysis-II	3	3	0		CIVL461	Engineering Economy	2	2	0		
		CIVL451	Highway Engineering-I	3	3	0		CIVL452	Highway Engineering-II	3	2	2		
		CIVL323	Structural Design-I	3	3	0		CIVL441	Water and wastewater Engineering	3	2	2		
								CIVL462	Construction methods and Estimation	3	3	0		
					16	15		2				17	15	4
YEAR 4			SUMMER	CODE	COURSE			C	L	P				
				ENGN333	Industrial training			2	0	4				
							2	0	4					
	FALL	CODE	COURSE	C	L	P	SPRING	CODE	COURSE	C	L	P		
		CIVL432	Foundation Engineering	3	3	0		CIVL471	Design Project	2	0	4		
		CIVLXXX	Technical elective-I(Structures)	3	3	0		CIVLXXX	Technical elective-II(structures)	3	3	0		
		CIVL501	Graduation Project	6	0	12		CIVLXXX	Technical elective-III(Structures)	3	3	0		
		CIVL463	Project Management	2	2	0		CIVLXXX	Technical elective-IV(Geotech)	3	3	0		
			College Elective	3	3	0		CIVLXXX	Technical elective-V(transportation)	3	3	0		
					17	11		12				14	12	4
							Total No. of Credit				148			

Degree Plan for B.Sc. in Civil Engineering

Minimum No. of Credits for the Degree Plan = 148					
University requirements = 24 Credits					
Course Code	Course Name	Credit Hours	Contact Hours		Pre-requisites/Co-requisites
			Theory	Practical	
ARAB100	ARABIC LANGUAGE-I	3	3	0	
ARAB101	ARABIC LANGUAGE-II	3	3	0	ARAB100
COMP101/L	COMPUTER SKILL	3	2	2	Comp-A, Comp-B (Digital Literacy)
ENGL150	ENGLISH LANGUAGE-I	3	3	0	
ENGL152	ENGLISH LANGUAGE-II	3	3	0	ENGL150
ENGL155	COMMUNICATION SKILL	3	3	0	ENGL152
HIST150	ISLAMIC CIVILIZATION	3	3	0	
MNGT100/L	ENTREPRENEURSHIP CREATIVITY AND INNOVATION	3	2	2	
College requirements = 18 Credits					
COMP151/L	INTRODUCTION TO ALGORITHMS	4	3	2	COMP101/L
ENGN101	INTRODUCTION TO ENGINEERING	2	2	0	MATH116
ENGN103	ENGINEERING DRAWINGS	2	1	2	
ENGN333	INDUSTRIAL TRAINING	2	0	4	110 credits
MATH116	PRE-CALCULUS	4	4	0	
MATH211	CALCULUS-I	4	3	2	MATH116
College elective = 3 Credits (ENGN201)					
Department Requirement: Core Course= 88 Credits					
CHEM107/L	FUNDAMENTAL OF CHEMISTRY	4	3	2	
CIVL211	STATICS	3	3	0	PHYS101
CIVL213/L	FLUIDENGINEERING MECHANICS	3	2	2	MATH211; CIVL211
MATH312	DIFFERENTIAL EQUATIONS FOR ENGINEERS	3	3	0	MATH212
PHYS101/L	GENERAL PHYSICS-I	4	3	2	MATH116
CIVL214	GEOMATIC ENGINEERING	3	2	2	ENGN101
CIVL216	DYNAMICS	2	2	0	CIVL211
CIVL221	SOLID MECHANICS	3	3	0	CIVL211
CIVL241	ENVIRONMENTAL ENGINEERING	3	3	0	CHEM107
CIVL321	STRUCTURAL ANALYSIS I	3	2	2	CIVL221,CIVL216 MATH211
CIVL441	WATER AND WASTEWATER ENGINEERING	3	2	2	CIVL241
MATH212	CALCULUS II	3	2	2	MATH211

Course Code	Course Name	Credit Hours	Contact Hours		Pre-requisites/Co-requisites
			Theory	Practical	
CIVL212	CIVIL ENGINEERING MATERIALS	3	2	2	CHEM107,CIVL211
STAT105	STATISTICS FOR ENGINEERING	3	2	2	MATH211
CIVL215	CIVIL ENGINEERING DRAWING	2	0	4	ENGN103
CIVL322	STRUCTURAL ANALYSIS II	3	3	0	CIVL321
CIVL323	STRUCTURAL DESIGN I	3	0	0	CIVL321,CIVL212,CIVL215
CIVL332	GEOTECHNICAL ENGINEERING I	4	3	2	CIVL221
CIVL342	HYDROLOGY AND HYDRAULICS	3	3	0	CIVL213
CIVL421	STRUCTURAL DESIGN II	3	3	0	CIVL323
CIVL431	GEOTECHNICAL ENGINEERING II	3	3	0	CIVL332,MATH312
CIVL432	FOUNDATION ENGINEERING	3	3	0	CIVL431,CIVL215
CIVL451	HIGHWAY ENGINEERING I	3	3	0	CIVL214
CIVL452	HIGHWAY ENGINEERING II	3	2	2	CIVL451,CIVL212,CIVL332
CIVL461	ENGINEERING ECONOMICS	2	2	0	STAT105
CIVL462	CONSTRUCTION METHODS AND ESTIMATION	3	3	0	CIVL215,CIVL323
CIVL463	PROJECT MANAGEMENT	2	2	0	CIVL462+CIVL461
CIVL471	DESIGN PROJECT	2	0	4	Final Year
CIVL501	GRADUATION PROJECT	6	0	12	120 credits
Department Technical Electives = 15 Credits					
CIVL511	GEOINFORMATION	3	3	0	CIVL214 ,COMP101
CIVL521	STRUCTURAL ANALYSIS III	3	3	0	CIVL322
CIVL522	BRIDGE ENGINEERING	3	3	0	CIVL421, CIVL521 ,CIVL452
CIVL523	DESIGN OF BUILDING STRUCTURE	3	3	0	CIVL421,CIVL521 ,CIVL432
CIVL524	ASSESSMENT AND REHABILITATION OF STRUCTURES	3	3	0	CIVL421 ,CIVL212
CIVL525	PRESTRESSED CONCRETE	3	3	0	CIVL421
CIVL531	RETAINING STRUCTURES	3	3	0	CIVL432 ,CIVL323
CIVL532	FOUNDATION DESIGN	3	3	0	CIVL432
CIVL533	SOIL IMPROVEMENT	3	3	0	CIVL431
CIVL534	DAM DESIGN	3	3	0	CIVL431 ,CIVL342
CIVL535	OFFSHORE STRUCTURES	3	3	0	CIVL421 CIVL521
CIVL536	STRUCTURAL DYNAMICS	3	3	0	CIVL421 CIVL521
CIVL541	SURFACE WATER ENGINEERING	3	3	0	CIVL342
CIVL542	GROUNDWATER ENGINEERING	3	3	0	CIVL341
CIVL543	ADVANCED WASTEWATER ENGINEERING	3	3	0	CIVL441
CIVL544	SOLID WASTE MANAGEMENT ENGINEERING	3	3	0	CIVL463 ,CIVL241

CIVL545	WATER RESOURCES MANAGEMENT	3	3	0	CIVL463 ,CIVL342
CIVL551	TRANSPORTATION PLANNING	3	3	0	CIVL451
CIVL552	ROAD CONSTRUCTION AND MAINTENANCE	3	3	0	CIVL452
CIVL553	ADVANCED PAVEMENT ENGINEERING	3	3	0	CIVL452
CIVL554	TRAFFIC SAFETY AND MANAGEMENT	3	3	0	CIVL451
CIVL555	Public Transport Systems	3	3	0	CIVL451