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# Study plan of program

#### PROGRAM COURSE PLAN **Bachelor of Science (BS) Civil Engineering Curriculum** 0 Junior Sophomore Senior Freshman 0 0 0 0 **2** 0 2 0 2 CE 4XX **CE 330 ICS 103** CE 3XX **CE 261** CRCL115 Env. Eng. Principles Comp. Progra in C IGL <u>214</u> (3-0-3) (2-3-3) (3-0-3) (2-3-3) (3-0-3) CE 4XX (1-3-2) Senior Standing **CHEM 101** CHEM 130 **CE 215 EDUC 115** (2-3-3) **ME 201 CE 350** GS XXX GS Elective General Chemistry I (3-3-4) Computer Graphics Chemistry (2-0-2) operati Work (0-0-0) **EDUC** (2-3-3) (2-3-3) 125 Enterpre-neurship **CE 318 MATH 101 MATH 102 Foundation Year** Calculus (4-0-4) Num. & Stat. Methods in CE (2-0-2)(4-0-4) **ISE 307 CE 408** (2-3-3) MATH 201 MATH 202 CE 305 **ARAB 100** Junior Standing IC111 (3-0-3) (2-3-3)ETEC 115 amic Culur (2-0-2) abic Language Skills Computer & Information (2-0-2) (2-0-2)**CE 312 CE 201 CE 203** PHYS 101 **PHYS 102 CE 351 CE 305** (1-0-1)n. Physics I (3-3-4) n. Physic (3-3-4) Statics (3-0-3) Work con (9-0-9) (3-0-3)(3-0-3) **CE 343 CE 413** Transportaton Eng. Lab Project XXX **CE 303** PE 101 Phy. Educ. (0-2-1) PE 102 Phy. Educ. II (0-3-1) (0-9-3)Sci. Elective Structural Materials **CE 341** (2-3-3)**EE 202** (0-2-1)(3-3-4)CE 421 CE 303 & Senior Engg. (3-0-3) nst. Meth & Manag (3-0-3) ENGL 100 ENGL 102 NGL214 **CE 230 CE 353** CE 490 CE Seminar CE 312 & Senior (2-0-2) (3-0-3)(3-3-4)(1-0-1) (3-0-3)LT-LB-CR 14-8-17 13-15-18 Total 16-8-19 14-9-17 17-3-18 15-9-18 14-9-17 9-0-9 TOTAL CR 133 17 19 17 18 18 17 18







## **FIRST YEAR (FRESHMAN)**

FIRST SEMESTER							
COD	Œ	COURSE TITLE	LECT	LAB	CRED	PRE-REQUISITE	CO- REQ UISIT E
MATH	101	Calculus I	4	0	4	-	PHYS 101
PHYS	101	General Physics I	3	3	4	-	MAT H 101
ENGL	100	Elementary English	2	0	2	-	-
CHEM	101	General Chemistry I	3	3	4	-	-
IC	111	Islamic Culture	2	0	2	-	-
PE	101	Physical Education I	0	2	1	-	
TOTAL (CREDIT)						17	

	SECOND SEMESTER						
CODE		COURSE TITLE	LECT	LAB	CRED	PRE-REQUISITE	CO- REQ UISIT E
MATH	102	Calculus II	4	0	4	MATH 101	PHYS 102
PHYS	102	General Physics II	3	3	4	PHYS 101	MAT H 102
ICS	103	Computer Programming in C	2	3	3	MATH 101	-
ENGL	102	English Composition II	3	0	3	ENGL 100	-
ARB	100	Arabic Languages Skills	2	0	2	-	-
<b>CHEM</b> 130		Basics of Environment Chemistry	2	0	2	CHEM 101	-
PE	102	Physical Education II	0	2	1	PE 101	-
TOTAL (CREDIT)						19	1.4





## **SECOND YEAR (SOPHOMORE)**

		FIRST	SEMES	STER			
CODE		COURSE TITLE	LECT	LAB	CRED	PRE-REQUISITE	CO- REQ UISI TE
MATH	201	Calculus III	3	0	3	MATH 102	-
CE	201	Statics	3	0	3	PHYS 101	-
CE	261	Surveying	1	3	2	Sophomore Standing	-
CE	215	Computer Graphics	2	3	3	ICS 103	-
XXX	XXX	Science Elective	2	3	3	-	-
ENGL	214	Technical Report Writing	3	0	3	ENGL 102	-
TOTAL (CREDIT)			17				

	SECOND SEMESTER						
CODE		COURSE TITLE	LECT	LAB	CRED	PRE-REQUISITE	CO- REQ UISI TE
ME	201	Dynamics	3	0	3	CE 201	-
CE	230	Eng. Fluid Mechanics	3	0	3	CE 201, MATH 102	-
MATH	202	Elem. Diff. Equations	3	0	3	MATH 201	-
CE	203	Structural Mechanics	3	0	3	CE 201, MATH 102	-
EE	202	Fund. of Elec. Circuit	2	3	3	MATH 102, PHYS 102	-
CRCL	115	University Life Skills	3	0	3	-	-
	TOTAL (CREDIT)					18	aug.





## THIRD YEAR (JUNIOR)

		FIRST	SEME	STER	2		
CODE		COURSE TITLE	LECT	LAB	CRED	PRE-REQUISITE	CO- REQUI SITE
CE	303	Structural Materials	3	3	4	CE 203	-
ETEC	115	Computer and Information	2	0	2	-	-
CE	330	Environmental Eng. Principles	3	0	3	CHEM 130	-
CE	305	Structural Analysis I	3	0	3	CE 203	-
CE	318	Num. & Stat. Methods in CE	2	3	3	MATH 202, ICS 103	-
GS	XXX	GS Elective	2	3	3	-	-
	TOTAL (CREDIT)					18	

	SECOND SEMESTER						
CODE		COURSE TITLE	LECT	LAB	CRED	PRE-REQUISITE	CO- REQUI SITE
ISE	307	Engineering Economics	3	0	3	Junior Standing	-
CE	312	Introduction To CE Design	1	0	1	CE 305, Junior Standing	-
CE	341	Transp. Engineering	3	0	3	PHYS 101	CE 343
CE	343	Transp. Engineering LAB	0	3	1	CE 303	CE 341
CE	353	Geotechnical Engineering I	3	3	4	CE 203, CE 230	-
CE	3XX	CE Elective I	2	3	3	-	-
EDUC	115	Work Values and Ethics	2	0	2	-	-
				17	Aug 2		





#### **SUMMER SESSION**

CODE	COURSE TITLE	LECT	LAB	CRED	PRE-REQUISITE	CO- REQ UISI TE	
CE 350	Cooperative Work	0	0	0	CE 318, ENGL 214 & Senior Standing	-	
TOTAL (CREDIT)			0				

# **FOURTH YEAR (SENIOR)**

	FIRST SEMESTER							
CODE		COURSE TITLE	LECT	LAB	CRED	PRE-REQUISITE	CO- RE QUI SIT E	
CE 3	551	Cooperative Work (Cont.)	9	0	9	CE 318, ENGL 214 & Senior Standing	-	
	TO	OTAL (CREDIT)				9		
		SECONE	SEME	STER				
COL	<b>DE</b>	COURSE TITLE	LECT	LAB	CRED	PRE-REQUISITE	CO- RE QUI SIT E	
CE	421	Construction Methods & Management	3	0	3	CE 303, Senior Standing	-	
CE	4XX	CE Elective II	3	0	3	CE 3XX	-	
CE	408	Steel Design	2	3	3	CE 305	-	
CE	490	CE Seminar	1	0	1	CE 312, Senior Standing	-	
CE	413	Senior Design Project	0	9	3	CE 351	-	
CE	4XX	Option Elective	2	3	3	-	-	
EDUC	EDUC 125 Entrepreneurship		2	0	2	- Dusque ligitude	-	
	TOTAL (CREDIT)			18				
	Registration of Engineering the							





#### **ELECTIVE COURSES WITH CATEGORIES**

OPTIONS	COURSES						
	CE 315: Reinforced Concrete I (2-3-3)						
	CE 401: Concrete technology (2-3-3)						
	CE 402: Durability, Evaluation, and Repair of Concrete Structures (3-0-						
Option 1: Structures,	CE 405: Structural Analysis II (3-0-3)						
Materials and Construction	CE 406: Structural Mechanics II (3-0-3)						
(CE 3XX and CE 4XX)	CE 415: Reinforced Concrete II (2-3-3)						
	CE 418: Steel Design II (3-0-3)						
	ARE 459: Contracts and Specification (3-0-3)						
	CE 439: Civil Eng. Systems Analysis (3-0-3)						
	CE 440: Highway and Airport Materials (3-0-3)						
	CE 441: Pavement Design (3-0-3)						
	CE 442: Construction and Maintenance of Highways & Airports (3-0-3						
	CE 444: Traffic Engineering. & Roadway Safety (3-0-3)						
Option 2: Transportation and Geotechnical	CE 453: Geotechnical Engineering II (3-0-3)						
Engineering (CE 3XX and CE 4XX)	CE 454: Soil Stabilization and Site Improvement (3-0-3)						
	CE 455: Foundation and Earth Structures Design (3-0-3)						
	CE 456: Seepage Analysis & Its Control (3-0-3)						
	CE 464: Project Surveying (3-0-3)						
	CE 439: Civil Eng. Systems Analysis (3-0-3)						
Option 3: Water Resources	CE 332: Engineering Hydrology and Hydraulics (2-3-3)						
& Environmental Engineering	CE 431: Hydrologic Engineering (3-0-3)						
(CE 3XX and CE 4XX)	CE 433: Groundwater Engineering (3-0-3)						





OPTIONS	COURSES					
	CE 436: Open Channel Hydraulics (3-0-3)					
	CE 438: Hydraulic Systems Design (2-3-3)					
	CE 473: Design and Operation of Water and Wastewater Treatment					
	CE 439: Civil Eng. Systems Analysis (3-0-3)					
	CE 471: Water and Wastewater: Treatment and Reuse (2-3-3)					
	CE 474: Municipal Solid Waste Management (3-0-3)					
	CE 476: Industrial Hazardous Waste Management and Treatment (3-0-3)					
Science Elective Courses	GEOL 201: Physical Geology (2-3-3)					
(XXX XXX)	GEOL 202: Applied Geosciences for Scientists & Engineers (2-3-3)					
	MGT 301: Principles of Management (3-0-3)					
	STAT 319: Probability and Statistics for Engineers and Scientists (2-3-3)					
	ECON 403: Engineering Economics (3-0-3)					
General Studies Elective	GS 400: Energy efficiency (3-0-3)					
Courses	GS 321: Principles of Human Behavior Principles of Human Behavior (3-					
(GS-XXX)	GS 423: International Relations (3-0-3)					
	GS 424: Planning and Social Development (3-0-3)					
	GS 427: Man and Environment (3-0-3)					
	ISE 205: Engineering Probability & Statistics (3-0-3)					