BACHELOR OF SCIENCE IN CIVIL ENGINEERING EFFECTIVE ACADEMIC YEAR 2018-2019 (Updated Program of Study as of Academic Year 2020-2021) HOURS **COURSE** CO-**COURSE TITLE** PRE-REQUISITE **UNITS REQUISITE** CODE **LEC** LAB **FIRST YEAR** FIRST 17 3 23 SEMESTER CE131 2 0 2 None Civil Engineering Orientation 3 0 CHEM131 Chemistry for Engineers, lec 3 None CHEM181 CHEM181 Chemistry for Engineers, lab 0 3 1 None CHEM131 0 MATH137 3 None **Engineering Calculus 1** 3 3 0 MATH031 3 None Mathematics in the Modern World STS031 Science, Technology and Society 3 0 3 None SOCSCI031 3 0 3 Readings in Philippine History None PE103 Movement Enhancement 2 None NSTP111 3 National Service Training Program 1 None SECOND 15 9 23 SEMESTER 3 **MATH138 Engineering Calculus 2** n 3 MATH137 MATH138 PHYS132 3 0 3 MATH137 Physics for Engineers, lec PHYS182 MATH138. PHYS182 Physics for Engineers, lab 0 3 1 MATH137 PHYS132 ES081 **Engineering Drawing and Plans** 0 3 None ES084 Computer Programming 1 0 3 1 None SOCSCI032 The Contemporary World 3 0 3 None PSYCH031 Understanding the Self 3 0 3 None PHILO031 3 **Ethics** 0 3 None PE104 Fitness Exercises 2 PE103 NSTP112 3 NSTP111 National Service Training Program 2 **SECOND YEAR FIRST** 20 9 25 SEMESTER CE231 Statics of Rigid Bodies 3 0 3 MATH138, PHYS132 CE261 Fundamentals of Surveying 1 2 3 3 ES081 MATH138 MATH237 **Differential Equations** 3 0 3 ES031 **Engineering Data Analysis** 3 0 3 MATH137 ES034 **Engineering Management** 3 0 3 None ES083 Computer-Aided Design and Drafting 0 3 None 1 0 3 ES084 ES085 Computer Programming 2 1 ENGL031 **Purposive Communication** 3 0 3 None **HUM031** Art Appreciation 3 0 3 None PE205 2 Physical Activities Towards Health and Fitness I PE103 SECOND 19 6 23 SEMESTER CE232 2 0 2 CE231 Dynamics of Rigid Bodies CE234 5 0 CE231 Mechanics of Deformable Bodies 5 CE262 Fundamentals of Surveying 2 2 3 3 CE261 CE264 Construction Materials and Testing 2 3 3 CE231 CE234 CHEM131 GEOL131A Geology for Civil Engineers 2 0 2 ES032 3 0 3 ES031 **Engineering Economics** GE-CE1 General Education Elective 1 3 0 3 None PE206 Physical Activities Towards Health and Fitness II PE103 2

CE333 CE335 CE337 CE351 CE361 GE-CE2 GE-CE3	Highway and Railroad Engineering Engineering Utilities 1 Engineering Utilities 2	IIRD YEAR	,			*
DE331 DE333 DE335 DE337 DE351 DE361 DE361 DE-CE2 DE-CE3	Engineering Utilities 1	22				
DE331 DE333 DE335 DE337 DE351 DE361 DE361 DE-CE2 DE-CE3	Engineering Utilities 1		6	24		
CE335 CE337 CE351 CE361 CE361 SE-CE2		3	0	3	CE262, CE232	
CE337 CE351 CE361 GE-CE2 GE-CE3	Engineering Utilities 2	3	0	3	PHYS132	
EE351 EE361 GE-CE2 GE-CE3		3	0	3	PHYS132	
CE361 GE-CE2 GE-CE3	Construction Safety Management	1	0	1	3rd Year Standing	
GE-CE2 GE-CE3	Numerical Solutions to CE Problems	3	0	3	MATH237	
BE-CE3	Structural Theory	3	6	5	CE234	
	General Education Elective 2	3	0	3	None	
	General Education Elective 3	3	0	3	None	
ECOND EMESTER		20	12	24		
E352	Hydrology	2	0	2	PHYS132	
E354	Environmental Engineering for CE	2	0	2	CE335	CE364
E356	CE Law, Ethics and Contracts	2	0	2	3rd Year Standing	CE362,
E362	Principles of Steel Design	2	3	3	CE361	CE368
	Building System Design	2	3	3	ES081	
	Hydraulics	4	3	5	CE232, CE234	
	Principles of Reinforced/Pre-stressed Concrete	3	3	4	CE361	
	Technopreneurship	3	0	3	ES032	
UMMER		2	3	3		
ERM CE460	On-the-Job Training	2	3	3	4th year level	
JL400	On-the-Sob Halling		3	3	411 year level	
l	FOL	JRTH YEAR				
IRST		13	18	19		
CE431	Principles of Transportation Engineering	3	0	3	CE331	
	Geotechnical Engineering 1 (Soil Mechanics)	3	3	4	GEOL131A, CE234	
	CE Project 1	1	3	2	4th Year Standing	
	Professional Course-specialized 1	3	3	4	4th Year Standing	
	Professional Course-specialized 2	3	3	4	4th Year Standing	
JL 1 3403	·	0	3		-	
		0	1 3		IMATHOOT CEORO	CE/21
CECC481	CE Comprehensive Course 2	0		1	MATH237, CE262	CE431
DECC481 DECC483	CE Comprehensive Course 2	0	3	1	MATH237, CE262 CE362, CE368	CE431
DECC481 DECC483	·	0 13				CE431
DECC481 DECC483 BECOND BEMESTER	·		3	1		CE431
CECC481 CECC483 SECOND SEMESTER CE462	CE Comprehensive Course 2	13	3 21	20	CE362, CE368 CE333, CE335, CE362,	CE431
DECC481 DECC483 DECOND DEMESTER DE462 DE464	CE Comprehensive Course 2 Quantity Surveying	13	3 21 3	1 20 2	CE362, CE368 CE333, CE335, CE362, CE364, CE368	CE431
DECC481 DECC483 BECOND BEMESTER DE462 DE464 DE466	CE Comprehensive Course 2 Quantity Surveying CE Project 2	13 1 1	3 21 3 3	2 2 2	CE362, CE368 CE333, CE335, CE362, CE364, CE368 CE463	
CECC481 CECC483 SECOND SEMESTER CE462 CE464 CE466 CETS464	CE Comprehensive Course 2 Quantity Surveying CE Project 2 Construction Methods and Project Management	13 1 1 2	3 21 3 3 3 3	2 2 2 3	CE362, CE368 CE333, CE335, CE362, CE364, CE368 CE463 4th Year Standing	
DECC481 DECC483 DECOND DEMESTER DE462 DE464 DE466 DETS464 DETS466	CE Comprehensive Course 2 Quantity Surveying CE Project 2 Construction Methods and Project Management Professional Course-specialized 3	13 1 1 2 3	3 21 3 3 3 3 3 3	2 2 3 4	CE362, CE368 CE333, CE335, CE362, CE364, CE368 CE463 4th Year Standing 4th Year Standing	
CECC481 CECC483 SECOND SEMESTER CE462 CE464 CE466 CETS466 CETS466 CETS468	CE Comprehensive Course 2 Quantity Surveying CE Project 2 Construction Methods and Project Management Professional Course-specialized 3 Professional Course-specialized 4	13 1 1 2 3 3	3 21 3 3 3 3 3 3 3	2 2 2 3 4 4 4	CE362, CE368 CE333, CE335, CE362, CE364, CE368 CE463 4th Year Standing 4th Year Standing	
DECC481 DECC483 DECOND DEMESTER DE462 DE464 DE466 DETS464 DETS466 DETS468 DECC484	CE Comprehensive Course 2 Quantity Surveying CE Project 2 Construction Methods and Project Management Professional Course-specialized 3 Professional Course-specialized 4 Professional Course-specialized 5	13 1 1 2 3 3 3	3 21 3 3 3 3 3 3 3 3	2 2 3 4 4 4 4	CE362, CE368 CE333, CE335, CE362, CE364, CE368 CE463 4th Year Standing 4th Year Standing 4th Year Standing 4th Year Standing	

	PROFESSIONAL CO	JRSES - SPECIA	LIZED	TRAC	KS	
	I NO. EGGIONAL GO	D.				
A. Construction Engineering and Management		Transportation Engineering				
Project		Transportation				
Construction		Systems				
and		Planning and				
Management		Design				
Advanced		Design				
Construction		∐ighwov.				
		Highway				
Methods and		Engineering				
Equipment						
Construction						
Cost		Airport Design				
Engineering						
Database						
Management in		Ports and Harbor				
Construction						
Construction						
Occupational						
Safety and						
Health (COSH)						
54.11 (55511)		E. Water				
D 0	alast Fusina salas					
B. Geotnech	nical Engineering	Resources				
		Engineering				
Geotechnical						
Engineering 2		Water Resources				
(Rock		Engineering				
Mechanics)						
		Flood Control				
Foundation		and Drainage				
Engineering		Design				
Geotechnical		Doolgii				
		Irrigation				
Earthquake		Engineering				
Engineering						
Ground		Water Supply				
Improvement		Planning and				
Improvement		Development				
C Structure	l Engineering	Coastal				
C. Structura	Linginicering	Engineering				
Computer						
Software in		River				
Structural		Engineering				
Analysis						
Earthquake		Ground Water				
Engineering		Flow Modelling				
Design Steel		r low wiedening				
Structures						
Reinforced						
Concrete						
Design						
Prestressed						
Concrete						
Design						
Structural						
Design of						
Towers and						
other Vertical						
Structures						
Bridge						
Engineering						
Foundation of						
Retaining Wall						
Design						
Design						
	RECOMMENDED GE					
ENGL014	Technical Writing/ Communication	3	0	3		
SSP031 SSP032	Creative Thinking Tools Sustainability Development and Global Citizenship	3	0	3		