


TECHNOLOGICAL INSTITUTE OF THE PHILIPPINES
Quezon City
2023 CURRICULUM FOR BACHELOR OF SCIENCE IN ENVIRONMENTAL AND SANITARY ENGINEERING - (BSEnSE)

IMPORTANT: Registration in any course/s without all the pre-requisite/s, correct sequence and authorized load shall not be given any credit regardless of the grade/s obtained.

NAME : _____ STUDENT NO : _____

COURSE CODE		DESCRIPTIVE TITLE	LEC HOURS	LAB HOURS	CREDIT UNITS	PRE-REQUISITE(S)/CO-REQUISITE(S)
FIRST YEAR, FIRST SEMESTER (21 UNITS)						
GEE	001	General Education Elective 1	3	0	3	
ENSE	001	Sanitary Engineering Orientation	1	0	1	
EMATH	016	Calculus 1	4	0	4	
CE	005	Engineering Drawings and Plans	0	3	1	
CHEM	001C	Chemistry for Engineers	3	3	4	
GEC	003	Contemporary World	3	0	3	
EMATH	015	Engineering Mathematics	3	0	3	
PE	001	Physical Activities Toward Health and Fitness 1 (PATHfit 1)	2	0	2	
NSTP	001	National Service Training Program 1	(3)	0	(3)	
TOTAL			19	6	21	
FIRST YEAR, SECOND SEMESTER (21 UNITS)						
GEE	002	General Education Elective 2	3	0	3	
CHEM	003A	Environmental and Sanitary Chemistry	2	3	3	CHEM 001C(P)
PHYS	001C	Calculus-Based Physics	3	3	4	EMATH 016(P)
ITE	001A	Computer Fundamentals and Programming	0	6	2	
EMATH	017	Calculus 2	4	0	4	EMATH 016(P)
MATH	019	Engineering Data Analysis	3	0	3	
PE	002	Physical Activities Toward Health and Fitness 2 (PATHfit 2)	2	0	2	PE 001(P)
NSTP	002	National Service Training Program 2	(3)	0	(3)	NSTP 001(P)
TOTAL			17	12	21	
SECOND YEAR, FIRST SEMESTER (25 UNITS)						
CE	001	Statics of Rigid Bodies	3	0	3	EMATH 017(P) PHYS 001C(P)
GEC	002	Readings in Philippine History	3	0	3	
GEE	003	General Education Elective 3	3	0	3	
SOCSC	005	Life and Works of Rizal	3	0	3	
MATH	010	Differential Equations	3	0	3	EMATH 017(P)
CE	010A	Fundamentals of Surveying	3	6	5	ENSE 001(P)
CE	301	Engineering Geology	3	0	3	CHEM 001C(P)
PE	003	Physical Activities Toward Health and Fitness 3 (PATHfit 3)	2	0	2	PE 001(P) PE 002(P)
TOTAL			23	6	25	
SECOND YEAR, SECOND SEMESTER (24 UNITS)						
CE	002A	Dynamics of Rigid Bodies	2	0	2	CE 001(P)
CE	003	Mechanics of Deformable Bodies	4	0	4	CE 001(P)
CPE	003	Computer-Aided Drafting	0	3	1	ITE 001A(P)
ME	005	Engineering Economy	3	0	3	ENSE 001(P)
GEC	005	Purposive Communication	3	0	3	
GEC	008	Ethics	3	0	3	
GEC	007	Science, Technology and Society	3	0	3	
MATH	020	Numerical Solutions to Engineering Problems	2	3	3	MATH 010(P)
PE	004	Physical Activities Toward Health and Fitness 4 (PATHfit 4)	2	0	2	PE 001(P) PE 002(P)
TOTAL			22	6	24	
THIRD YEAR, FIRST SEMESTER (26 UNITS)						
GEC	004	Mathematics in the Modern World	3	0	3	



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ENSE	019	Computational Methods, Techniques and Application in ENSE	0	3	1	CPE 003(P)
ENVI	001	Environmental Science and Engineering	3	0	3	CHEM 003A (P)
EE	001	Basic Electrical Engineering	3	0	3	PHYS 001C(P)
THER	001A	Thermodynamics	3	0	3	PHYS 001C(P)
ENSE	002	Microbiology and Parasitology for Environmental Engineers	2	3	3	CHEM 003A(P)
CE	404A	Structural Theory	3	3	4	CE 003(P)
CE	405A	Construction Materials and Testing	2	3	3	CE 002A(P) CE 003(P)
CE	402	Fluid Mechanics	2	3	3	CE 003(P)
TOTAL			21	15	26	
THIRD YEAR, SECOND SEMESTER (25 UNITS)						
ENSE	003	Integration Course for Mathematics	2	0	2	MATH 020(P)
ENSE	004	Project Management	3	3	4	CE 405A(P)
CE	015A	Principles of Reinforced/Prestressed Concrete	3	3	4	CE 404A(P)
CE	016A	Hydraulics	2	3	3	CE 402(P) THER 001A(P)
ENSE	406	Occupational Health and Safety	2	0	2	ENSE 002(P) ENVI 001(P)
CE	410A	Hydrology	3	0	3	MATH 010(P)
GEC	006	Art Appreciation	3	0	3	
COE	002A	Introduction to Intellectual Property	0	3	1	
GEC	001	Understanding the Self	3	0	3	
TOTAL			21	12	25	
THIRD YEAR, SUMMER (3 UNITS)						
ENSE	007	Sanitary Engineering OJT/Practicum(240hrs)	2	3	3	3rd Year Standing
TOTAL			2	3	3	
NO STUDENT SHALL BE ALLOWED TO TAKE FOURTH YEAR PROFESSIONAL COURSES UNLESS HE HAS COMPLETED THE BASIC AND THE THIRD YEAR COURSES INCLUDING PE AND NSTP COURSES.						
FOURTH YEAR, FIRST SEMESTER (25 UNITS)						
ENSE	006	Integration Course for Engineering Sciences	2	0	2	ENSE 003(P)
ENSE	008	Water Supply Planning and Development	3	0	3	CE 016A(P) CE 410A(P)
ENSE	009	Sanitary Science, Fire Protection and Plumbing as Applied to Buildings	2	3	3	CE 016A(P)
ENSE	010	SE Project 1	1	3	2	ENSE 004(P) MATH 019(P)
ENSE	011	SE Design Project 1	2	3	3	ENSE 004(P) MATH 019(P)
CE	401A	Geotechnical Engineering(Soil Mechanics)	3	3	4	CE 002A(P) CE 003(P) CE 301(P)
ENSE	404	Environmental Planning, Laws, and Impact Assessment	3	0	3	CE 410A(P) ENSE 002(P) ENVI 001(P)
ENSE	502	Sewerage and Urban Drainage	3	0	3	CE 016A(P) CE 410A(P)
EMAN	001	Engineering Management	2	0	2	ME 005(P)
TOTAL			21	12	25	
FOURTH YEAR, SECOND SEMESTER (24 UNITS)						
TECH	101A	Technology Entrepreneurship	3	0	3	Graduating
ENSE	005	Public Health Engineering	2	0	2	ENSE 002(P) ENVI 001(P)
ENSE	012	Sanitary Engineering Laws, Contracts and Ethics	3	0	3	ENSE 404(P)
ENSE	013	Water Purification Process Design	3	0	3	ENSE 008(P)
ENSE	014	Sewage and Industrial Wastewater Treatment	3	0	3	ENSE 502(P)
ENSE	015	Solid and Hazardous Waste Engineering	3	0	3	CHEM 003A(P)
ENSE	016	Integration Course for ENSE	2	0	2	Graduating
ENSE	017	SE Project 2	0	3	1	ENSE 010(P)
ENSE	018	SE Design Project 2	1	6	3	Graduating ENSE 011(P)
ENSE	504	Environmental Engineering Laboratory	0	3	1	CHEM 003A(P) ENSE 404(P)
TOTAL			20	12	24	

CREDENTIALS PRESENTED:
() F137A () NSO Birth Certificate

DEFICIENCY/IES:

Evaluated By: _____ **LEGEND**
Date: _____ **P = Pre-requisite**



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() F138 () HD _____
() GMC () TOR _____

Received By: _____ C = Co-requisite
Date: _____

NOTE: EVALUATION IS TENTATIVE AND MAY BE REVISED FOR SOME VALID CAUSES OR REASONS OR IF OMISSIONS AND/OR LACK OF UNITS CREDITED BE DISCOVERED LATER.