


TECHNOLOGICAL INSTITUTE OF THE PHILIPPINES
Quezon City
2023 CURRICULUM FOR BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING (BSME)

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)							
	GEC	004	Mathematics in the Modern World	3	0	3	
	GEC	001	Understanding the Self	3	0	3	
	EMATH	016	Calculus 1	4	0	4	
	EMATH	015	Engineering Mathematics	3	0	3	
	CHEM	001C	Chemistry for Engineers	3	3	4	
	AR	001	Engineering Drawing	0	3	1	
	ME	003	Mechanical Engineering Orientation	1	0	1	
	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 (26 UNITS)							
	GEC	006	Art Appreciation	3	0	3	
	SOCSOC	005	Life and Works of Rizal	3	0	3	
	MATH	013	Linear Algebra with MATLAB	2	3	3	EMATH 016(P)
	EMATH	017	Calculus 2	4	0	4	EMATH 016(P)
	PHYS	001C	Calculus-Based Physics	3	3	4	EMATH 017(C)
	ME	008	Computer-Aided Drafting for ME	0	3	1	AR 001(P)
	GEC	003	The Contemporary World	3	0	3	
	PE	002	Physical Activities Toward Health and Fitness 2 (PATHfit 2)	2	0	2	PE 001(P)
	GEE	001	General Education Elective 1	3	0	3	
	NSTP	002	National Service Training Program 2	(3)	0	(3)	NSTP 001(P)
	TOTAL			23	9	26	
SECOND YEAR, FIRST SEMESTER (24 UNITS)							
	GEC	005	Purposive Communication	3	0	3	
	GEC	007	Science, Technology, and Society	3	0	3	
	MATH	010	Differential Equations	3	0	3	EMATH 017(P)
	MATH	006	Discrete Mathematics	3	0	3	
	THER	001	Thermodynamics 1	3	0	3	EMATH 017(P) PHYS 001C(P)
	CE	001	Statics of Rigid Bodies	3	0	3	EMATH 017(P) PHYS 001C(P)
	EE	001	Basic Electrical Engineering	2	3	3	EMATH 017(P) PHYS 001C(P)
	ME	518	Workshop Theory and Practice	0	3	1	ME 003(P)
	PE	003	Physical Activities Toward Health and Fitness 3 (PATHfit 3)	2	0	2	PE 001(P) PE 002(P)
	TOTAL			22	6	24	
SECOND YEAR, SECOND SEMESTER (25 UNITS)							
	MATH	019	Engineering Data Analysis	3	0	3	EMATH 017(P)
	CE	002	Dynamics of Rigid Bodies	2	0	2	CE 001(P)
	GEC	002	Readings in Philippine History	3	0	3	
	MATH	018	Multivariate Calculus	3	0	3	EMATH 017(P)
	THER	002	Thermodynamics 2	3	0	3	THER 001(P)
	ITE	001B	Computer Programming	0	3	1	
	MATH	011ME	Advanced Mathematics for ME	3	0	3	MATH 010(P)
	ME	001	Machine Shop Theory	0	6	2	ME 518(P)
	ME	005	Engineering Economy	3	0	3	MATH 019(C)
	PE	004	Physical Activities Toward Health and Fitness 4 (PATHfit 4)	2	0	2	PE 001(P) PE 002(P)



COURSE CODE		DESCRIPTIVE TITLE	LEC HOURS	LAB HOURS	CREDIT UNITS	PRE-REQUISITE(S)/CO-REQUISITE(S)
TOTAL			22	9	25	
THIRD YEAR, FIRST SEMESTER (24 UNITS)						
CE	003A	Mechanics of Deformable Bodies	3	0	3	CE 002(P)
ME	303	Machine Elements	2	3	3	CE 002(P)
EE	004A	DC and AC Machinery	2	3	3	EE 001(P)
ME	403	Heat Transfer	2	0	2	THER 002(P)
CE	402A	Fluid Mechanics	3	0	3	THER 001(P)
ME	520	Computer Applications for ME	0	3	1	ITE 001B(P) ME 008(P)
ECE	005	Basic Electronics	2	3	3	EE 001(P)
ME	517	Basic Occupational Safety and Health	3	0	3	
GEC	008	Ethics	3	0	3	
TOTAL			20	12	24	
THIRD YEAR, SECOND SEMESTER (27 UNITS)						
ME	411	Methods of Research for ME	1	0	1	3rd Year Standing
ME	404	Machine Design 1	3	0	3	ME 303(P)
ME	407	Refrigeration Systems	3	0	3	ME 403(P)
ME	409	Combustion Engineering	2	0	2	ME 403(P)
ME	406	Fluid Machineries	3	0	3	CE 402A(P) ME 407(C)
EMAN	001	Engineering Management	2	0	2	
ME	401	Mechanical Engineering Lab 1	0	3	1	THER 002(P)
ME	007	Materials Science and Engineering for ME	2	3	3	CE 003A(P) CHEM 001C(P)
ECE	006	Control Engineering	2	3	3	ECE 005(P)
GEE	002	General Education Elective 2	3	0	3	
GEE	003	General Education Elective 3	3	0	3	
TOTAL			24	9	27	
FOURTH YEAR, SUMMER (4 UNITS)						
ME	516	Manufacturing and Industrial Processes with Plant Visits	1	3	2	4th Year Standing
ME	410	Mechanical Engineering Lab 2	0	6	2	ME 401(P) ME 406(P)
TOTAL			1	9	4	
FOURTH YEAR, FIRST SEMESTER (25 UNITS)						
MEE	001	Mechanical Engineering Elective 1	2	0	2	4th Year Standing, See track for pre-requisite(s)
ME	521	Machine Design 2	2	3	3	ME 404(P)
ME	508	ME Project Study 1	0	3	1	4th Year Standing
TECH	101A	Technology Entrepreneurship	3	0	3	4th Year Standing
ME	519	Air Conditioning and Ventilation Systems	3	0	3	ME 407(P)
ME	514	Vibration Engineering	2	0	2	ME 521(C)
ME	513	ME Design Project 1	2	3	3	4th Year Standing
ME	523	ME Laws, Ethics, Codes and Standards	2	0	2	4th Year Standing
ME	522	Power Plant Design with Renewable Energy	3	3	4	ME 406(P) ME 409(P)
ME	524	Integration Course in Mathematics	2	0	2	MATH 011ME(P) ME 005(P)
TOTAL			21	12	25	
FOURTH YEAR, SECOND SEMESTER (18 UNITS)						
ME	510	Industrial Plant Engineering	3	3	4	ME 516(P) ME 519(P)
ME	512	ME Project Study 2	0	3	1	ME 508(P)
ME	505	Mechanical Engineering Lab 3	0	6	2	ME 410(P) ME 522(P)
MEE	002	Mechanical Engineering Elective 2	2	0	2	MEE 001(P), See track for pre-requisite(s)
ME	526	Integration Course in Power Plant and Industrial Plant	2	0	2	Graduating ME 510(C) ME 522(P)
ME	525	Integration Course in Engineering and Science	2	0	2	ME 521(P)
ME	515	ME Design Project 2	1	6	3	Graduating ME 513(P)
ME	500	On-the-Job Training for ME	0	240	2	4th Year Standing
TOTAL			10	258	18	
ELECTIVE COURSES						



TRACK ELECTIVE 1: (Energy Engineering and Management)							
ME	527	Energy Management in Buildings	2	0	2	4th Year Standing	
ME	528	Energy Management in Industry	2	0	2	ME 527(P)	
TOTAL			4	0	4		
TRACK ELECTIVE 2:(Heating, Ventilation, Air Conditioning and Refrigeration)							
ME	529	Design of Thermal Systems	2	0	2	4th Year Standing	
ME	530	Design of Building Piping System and Air Conditioning Duct Works	2	0	2	ME 529(P)	
TOTAL			4	0	4		
TRACK ELECTIVE 3: (Mechatronics Engineering)							
ME	531	Introduction to Robotics	2	0	2	4th Year Standing	
ME	532	Industrial Robots	2	0	2	ME 531(P)	
TOTAL			4	0	4		
TRACK ELECTIVE 4: (Railway Engineering)							
RWE	001	Introduction to Railway Systems and Engineering	3	0	3	4th Year Standing	
RWE	002	Advanced Topic on Railway Engineering	3	0	3	RWE 001(P)	
TOTAL			6	0	6		

CREDENTIALS PRESENTED:

- () F137A () NSO Birth Certificate
- () F138 () HD
- () GMC () TOR

DEFICIENCY/IES:

Evaluated By: _____

Date: _____

Received By: _____

Date: _____

LEGEND

P = Pre-requisite

C = Co-requisite

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.