



COLLEGE OF ENGINEERING
MECHANICAL ENGINEERING DEPARTMENT

BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING
BSME Curriculum Effective First Semester, SY 2021-2022

Per CMO No. 97 Series of 2017

EVSU Board Resolution Number 87 Series of 2020

FIRST YEAR		FIRST SEMESTER				
GRADE	COURSE NO.	DESCRIPTIVE TITLE	HOURS/ WEEK		UNITS	PRE-REQUISITES/ (Co-requisite)
			LEC	LAB		
	GEN ED 001	Purposive Communication	3	0	3	NONE
	MATH 112	Solid Mensuration	2	0	2	NONE
	MATH 113	College Algebra	3	0	3	NONE
	MATH 133	Plane and Spherical Trigonometry	3	0	3	NONE
	MATH 153	Analytic Geometry	3	0	3	NONE
	CHEM 114	Chemistry for Engineers**	3	3	4	NONE
	DRAW 111D	Engineering Drawing**	0	3	1	NONE
	EO 101	Orientation to Mechanical Engineering	1	0	1	NONE
	PE 112	(PATHFIT) Movement Competency Training	2	0	2	NONE
	NSTP 113	CWTS, LTS. MTS (Naval and Air Force)	3	0	3	NONE
TOTAL			23	6	25	

FIRST YEAR		SECOND SEMESTER				
GRADE	COURSE NO.	DESCRIPTIVE TITLE	HOURS/ WEEK		UNITS	PRE-REQUISITES/ (Co-requisite)
			LEC	LAB		
	GEN ED 002	Understanding the Self	3	0	3	NONE
	GEN ED 003	Reading in Philippine History	3	0	3	NONE
	GEN ED 004	Mathematics in the Modern World	3	0	3	NONE
	MATH 124	Differential Calculus	4	0	4	MATH 112, MATH 113, MATH 133, MATH 153
	ME 123	Basic Occupational Safety & Health (BOSH)	3	0	3	
	CAD 121	Computer Aided Drafting**	0	3	1	DRAW111D
	MGT 123	Engineering Management	3	0	3	None
	PE 122	(PATHFIT) Fitness Training	2	0	2	NONE
	NSTP 123	CWTS, LTS. MTS (Naval and Air Force)	3	0	3	NSTP 113
TOTAL			24	3	25	

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SECOND YEAR		FIRST SEMESTER				
GRADE	COURSE NO.	DESCRIPTIVE TITLE	HOURS/ WEEK		UNITS	PRE-REQUISITES/ (Co-requisite)
			LEC	LAB		
	GEN ED 005	Arts Appreciation	3	0	3	NONE
	GEC EL 001	Living in the IT Era	3	0	3	NONE
	IE 203	Technopreneurship 101	3	0	3	NONE
	EDA 213	Engineering Data Analysis	3	0	3	MATH 124
	MATH 214	Integral Calculus	4	0	4	MATH 124
	PHYS 215	Physics for Engineers**	3	6	5	MATH 112, MATH 113, MATH 133, MATH 153, MATH 124
	COMP 212	Computer Fundamentals and Programming**	1	3	2	NONE
	ME 212L	Workshop Theory and Practice**	0	6	2	NONE
	PE 212	(PATHFIT) Dance Sports.	2	0	2	NONE
TOTAL			22	15	27	

SECOND YEAR		SECOND SEMESTER				
GRADE	COURSE NO.	DESCRIPTIVE TITLE	HOURS/ WEEK		UNITS	PRE-REQUISITES/ (Co-requisite)
			LEC	LAB		
	GEN ED 006	Ethics	3	0	3	NONE
	RIZAL 001	Rizal's Life and Works	3	0	3	NONE
	GEC EL 002	Gender and Society	3	0	3	NONE
	ECON 223	Engineering Economics	3	0	3	NONE
	MATH 223	Differential Equations	3	0	3	MATH 214
	MECH 223	Statics of Rigid Bodies	3	0	3	Phys 215/ Math 214
	ME 222L	Machine Shop Theory**	0	6	2	ME 212L
	ME 223	Thermodynamics 1	3	0	3	Phys 215/ Math 214
	EE 223	Basic Electrical Engineering**	2	3	3	Phys 215/ Math 214
	PE 222	(PATHFIT) Group Exercises, Outdoor and Adventure Activities	2	0	2	NONE
TOTAL			25	9	28	

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THIRD YEAR		First Semester				
GRADE	COURSE NO.	DESCRIPTIVE TITLE	HOURS/ WEEK		UNITS	PRE-REQUISITES/ (Co-requisite)
			LEC	LAB		
	GEN ED 007	The Contemporary World	3	0	3	NONE
	GEN ED 008	Science, Technology and Society	3	0	3	NONE
	MECH 312	Dynamics of Rigid Bodies	2	0	2	MECH 223
	ME 313	Thermodynamics 2	3	0	3	ME 223
	MATH 313	Advanced Mathematics for Mechanical Engineering	3	0	3	MATH 223
	CE 313	Fluid Mechanics	3	0	3	ME 223
	EE 313	DC and AC Machineries **	2	3	3	EE 223
	ME 332	Vibration Engineering	2	0	2	MATH 223
	GEC EL 003	Environmental Science	3	0	3	NONE
TOTAL			24	3	25	

THIRD YEAR		Second Semester				
GRADE	COURSE NO.	DESCRIPTIVE TITLE	HOURS/ WEEK		UNITS	PRE-REQUISITES/ (Co-requisite)
			LEC	LAB		
	MECH 323	Mechanics of Deformable Bodies	3	0	3	MECH 312
	ME 323	Machine Elements**	2	3	3	MECH 312/ DRAW 111D
	ME 322L	Mechanical Engineering Lab 1**	0	6	2	ME 313
	ME 342	Heat Transfer	2	0	2	ME 313
	ME 321	Methods of Research for Mechanical Engineering	1	0	1	EDA 213
	ME 322	Combustion Engineering	2	0	2	ME 313
	ME 363	ME Laws, Ethics, Contracts, Codes and Industry	3	0	3	Gen Ed 006
	EE 323	Basic Electronics**	2	3	3	EE 223
	ME 343	Fluid Machineries	3	0	3	CE 313
	COMP 321	Computer Application for ME**	0	3	1	COMP 212
TOTAL			18	15	23	

SUMMER					
GRADE	COURSE NO.	DESCRIPTIVE TITLE	MINIMUM NUMBER OF HOURS	UNITS	PRE-REQUISITES
	ME 301	On the Job Training (OJT)	240	1	3 RD YEAR STANDING ***
	ME 303	Refrigeration Systems	-	3	ME 342

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FOURTH YEAR		First Semester				
GRADE	COURSE NO.	DESCRIPTIVE TITLE	HOURS/ WEEK		UNITS	PRE-REQUISITES/ (Co-requisite)
			LEC	LAB		
	ME 414	Machine Design 1**	3	3	4	ME 323
	ME 411	Mechanical Engineering Project Study 1**	0	3	1	ME 321
	ME 412L	Mechanical Engineering Lab 2**	0	6	2	ME 322L, ME 343
	ME 473	Correlation Course for Mechanical Engineering I	3	0	3	
	ME 433	ME Elective 1 (Design of Building & Piping System)	3	0	3	NONE
	ME 413	Air-conditioning and Ventilation Systems	3	0	3	ME 303
	ME 453	Control Engineering	2	3	3	EE 323
	ME 434	Power Plant Design with Renewable Energy**	3	3	4	ME 322
TOTAL			17	18	23	

FOURTH YEAR		Second Semester				
GRADE	COURSE NO.	DESCRIPTIVE TITLE	HOURS/ WEEK		UNITS	PRE-REQUISITES/ (Co-requisite)
			LEC	LAB		
	ME 444	Machine Design 2**	3	3	4	ME 414
	ME 421	Mechanical Engineering Project Study 2**	0	3	1	ME 411
	ME 422L	Mechanical Engineering Lab 3**	0	6	2	ME 434
	ME 424	Industrial Plant Engineering**	3	3	4	ME 413, ME 483 (C)
	ME 443	ME Elective 2 (Mechatronics)	3	0	3	NONE
	ME 423	Material Science and Engineering for Mechanical Engineering**	2	3	3	MECH 323/ CHEM 114
	ME 463	Correlation Course for Mechanical Engineering II	3	0	3	
	ME 483	Manufacturing and Industrial Process with Plant Visit**	2	3	3	
TOTAL			16	21	23	

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Table 1. SUMMARY OF THE BSME CURRICULUM AS COMPARED TO CHED MINIMUM REQUIREMENTS

Classification Field/Course	Minimum Requirements in CHED MEMO '97			EVSU BSME CURRICULUM		
	NO. OF UNITS		Total	NO. OF UNITS		Total
	LEC.	LAB.		LEC.	LAB.	
I. TECHNICAL COURSES						
A. Mathematics	12	0	12	25	0	25
B. Natural / Physical Sciences	6	6	8	6	9	9
C. Basic Eng'g Sciences	16	9	19	18	9	21
D. Allied Courses	6	9	9	6	9	9
E. Fundamental Courses	39	33	50	40	39	53
F. Professional Courses	13	21	20	15	24	23
G. Technical Elective	4	0	4	6	0	6
TOTAL (TECHNICAL COURSES)	96	78	122	116	90	146
II. NON- TECHNICAL COURSES						
A. General Education Courses	24	0	24	24	0	24
B. Gen Ed Elective Courses/Mandated Courses	12	0	12	12	0	12
C. PE and NSTP	14	0	14	14	0	14
III. ON-JOB-TRAINING (240 Hrs. Minimum Rendition)	-	-	-	0	3	1
TOTAL (NON- TECHNICAL COURSES)	50	0	50	50	3	51
IV. ADDITIONAL COURSE SUBJECTS						
A. Correlation Course for Mechanical Engineering I, & II	-	-	-	6	0	6
TOTAL (ADDITIONAL COURSES/ SUBJECTS)	0	0	0	6	0	6
GRAND TOTAL						
	146	78	172	172	93	203



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Table 2: MATRIX OF PERFORMANCE INDICATORS WITH KEY COURSES AND ASSESSMENT METHOD

Performance Indicators		Key Courses	Assessment Methods	Targets and Standards
1	Apply concepts of advanced engineering Mathematics to solve complex mechanical engineering	Industrial Plant Design	Design Project	60% of students get a satisfactory rating
2	Apply Chemical and Physical principles in solving problems involving energy and mass balance	Power Plant Engineering	Technical Report	60% of students get a satisfactory rating
3	Apply the laws of thermodynamics in analyzing problems	Air Conditioning and Ventilation systems	Final Examination	60% of students get a satisfactory rating
4	Evaluate efficiencies of thermal and mechanical systems	Fluid Machineries	Final Examination	60% of students get a satisfactory rating

Department’s Policy:

- 1.) Entrants to BSME course should preferably come from STEM strands.
- 2.) Students who got three (3) failing grades on major subjects shall be advised to shift to another non-engineering course.
- 3.) Students with deficiency grade/s such as “incomplete” and/or “removal” grades have only one (1) semester within which to settle the grade/s.
- 4.) Enrollment process strictly implements a “pass” pre-requisite subjects.

Prepared by:

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Noted:

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Noted:

Foruro Q. Ramos
CETPS 9/29/23