HOLY ANGEL UNIVERSITY
SCHOOL OF ENGINEERING AND ARCHITECTURE
BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING (BSME)
Program Code: ME
EFFECTIVE SCHOOL YEAR 2018-2019 (with Amendments)

COURSE CODE	COURSE TITLE	LEC HRS	LAB HRS	CREDIT UNITS	PREREQUISITE(S)/ CO-REQUISITE(S)

FIRST YEAR, FIRST SEMESTER

COURSE CODE	COURSE TITLE	LEC HRS	LAB HRS	CREDIT UNITS	PREREQUISITE(S)/ CO-REQUISITE(S)
1PURCOMM	Purposive Communication	3	0	3	None
2MATHMWORLD	Mathematics in the Modern World	3	0	3	None
CALC1	Calculus 1 (Differential)	3	0	3	None
CHEMENG	Chemistry for Engineers	3	0	3	None
CHEMENGL	Chemistry for Engineers Laboratory	0	3	1	Co-req: CHEMENG
ESDRAW	Engineering Drawing	0	3	1	None
4FYE1	Big History 1: Big Bang to the Future	3	0	3	None
THEOLOGY101	Theological Foundations: Judeo-Christian Tradition and Sacred Scriptures	3	0	3	None
7PE1	PE 1 - Movement Enhancement	2	0	2	None
CWTS1	Civic Welfare Training Service	0	3	3	None
	TOTAL	**20**	**9**	**25**	

FIRST YEAR, SECOND SEMESTER

COURSE CODE	COURSE TITLE	LEC HRS	LAB HRS	CREDIT UNITS	PREREQUISITE(S)/ CO-REQUISITE(S)
4ARTAPP	Art Appreciation	3	0	3	None
4READPHILHIS	Readings in Philippine History	3	0	3	None
CALC2	Calculus 2 (Integral)	3	0	3	CALC1
EPHYSICS	Physics for Engineers	3	0	3	CALC1, Co-req: CALC2
EPHYSICSL	Physics for Engineers Laboratory	0	3	1	CALC1, Co-reqs: CALC2, EPHYSICS
CADRAFT	Computer-Aided Drafting	0	3	1	ESDRAW
ME-ORIENT	Mechanical Engineering Orientation	1	0	1	None
4FYE2	Big History 2: Looking through the Lens of Big History	3	0	3	4FYE1
THEOLOGY102	Special Issues in Catholic Theology	3	0	3	THEOLOGY101
7PE2	PE 2 - Fitness Exercises	2	0	2	7PE1
CWTS2	Civic Welfare Training Services 2	0	3	3	CWTS1
	TOTAL	**21**	**9**	**26**	

SECOND YEAR, FIRST SEMESTER

COURSE CODE	COURSE TITLE	LEC HRS	LAB HRS	CREDIT UNITS	PREREQUISITE(S)/ CO-REQUISITE(S)
4CONWORLD	The Contemporary World	3	0	3	None
9STS	Science, Technology and Society	3	0	3	None
COMFUNPROG	Computer Fundamentals and Programming	0	3	1	None
ENGDATA	Engineering Data Analysis	3	0	3	CALC1
DIFFEQNS	Differential Equations	3	0	3	CALC2
STATICS-RB	Statics of Rigid Bodies	3	0	3	CALC2, EPHYSICS, EPHYSICSL
THERMODYN1	Thermodynamics 1	3	0	3	CALC2, EPHYSICS, EPHYSICSL
WORK-SHOP	Workshop Theory and Practice	0	3	1	None
7PE3	PE 3 - Physical Activities towards Health and Fitness 1	2	0	2	7PE2
	TOTAL	**20**	**6**	**22**	

SECOND YEAR, SECOND SEMESTER

COURSE CODE	COURSE TITLE	LEC HRS	LAB HRS	CREDIT UNITS	PREREQUISITE(S)/ CO-REQUISITE(S)
4UNDERSELF	Understanding the Self	3	0	3	None
ADVMATH-ME	Advanced Mathematics for ME	3	0	3	DIFFEQNS
DYNAMICS-RB	Dynamics of Rigid Bodies	2	0	2	STATICS-RB
BASICEE	Basic Electrical Engineering	2	0	2	CALC2, EPHYSICS, EPHYSICSL
BASICEEL	Basic Electrical Engineering Laboratory	0	3	1	CALC2, EPHYSICS, EPHYSICSL, Co-req: BASICEE
ENGGECON	Engineering Economics	3	0	3	2nd Year Standing
MACHSHOP	Machine Shop Theory	0	6	2	WORK-SHOP
THERMODYN2	Thermodynamics 2	3	0	3	THERMODYN1
THEOLOGY103	Christian Spirituality in the Contemporary World	3	0	3	THEOLOGY102
7PE4	PE 4 - Physical Activities towards Health and Fitness 2	2	0	2	7PE3
	TOTAL	**21**	**9**	**24**	

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COURSE CODE	COURSE TITLE	LEC HRS	LAB HRS	CREDIT UNITS	PREREQUISITE(S)/ CO-REQUISITE(S)

THIRD YEAR, FIRST SEMESTER

COURSE CODE	COURSE TITLE	LEC HRS	LAB HRS	CREDIT UNITS	PREREQUISITE(S)/ CO-REQUISITE(S)
3FIL1	Konstekswalisadong Komunikasyon sa Filipino	3	0	3	None
COMAPPS-ME	Computer Applications for ME	0	3	1	COMFUNPROG
ENGGMGMT	Engineering Management	3	0	3	3rd Year Standing
ME-MERES	Methods of Research for ME	1	0	1	ENGDATA
DCACMACH	DC and AC Machinery	2	0	2	BASICEE, BASICEEL
DCACMACHL	DC and AC Machinery Laboratory	0	3	1	BASICEE, BASICEEL, Co-req: DCACMACH
FLUIDM	Fluid Mechanics	3	0	3	THERMODYN1
COMBUSTENG	Combustion Engineering	2	0	2	THERMODYN2
HEATTRANS	Heat Transfer	2	0	2	THERMODYN2
MACHELM	Machine Elements	2	0	2	DYNAMICS-RB
MACHELMD	Machine Elements Design	0	3	1	DYNAMICS-RB, Co-req: MACHELM
MECHDB	Mechanics of Deformable Bodies	3	0	3	DYNAMICS-RB
	TOTAL	**21**	**9**	**24**	

THIRD YEAR, SECOND SEMESTER

COURSE CODE	COURSE TITLE	LEC HRS	LAB HRS	CREDIT UNITS	PREREQUISITE(S)/ CO-REQUISITE(S)
3FIL2	Filipino sa Iba't Ibang Disiplina	3	0	3	3FIL1
4ETHICS	Ethics	3	0	3	None
4RIZAL	Life and Works of Rizal	3	0	3	None
BASETRON	Basic Electronics	2	0	2	BASICEE, BASICEEL
BASETRONL	Basic Electronics Laboratory	0	3	1	BASICEE, BASICEEL, Co-req: BASETRON
ME-MATLS	Materials Science and Engineering for ME	2	0	2	CHEMENG, CHEMENGL, MECHDB
ME-MATLSL	Materials Science and Engineering for ME Laboratory	0	3	1	CHEMENG, CHEMENGL, MECHDB, Co-req: ME-MATLS
MELAB-1	ME Laboratory 1	0	3	1	THERMODYN2
FLUIDMACH	Fluid Machinery	3	0	3	FLUIDM
REFRIGSYS	Refrigeration Systems	3	0	3	HEATTRANS
VIBRENGG	Vibration Engineering	2	0	2	DIFFEQNS
	TOTAL	**21**	**9**	**24**	

THIRD YEAR, SUMMER TERM

COURSE CODE	COURSE TITLE	LEC HRS	LAB HRS	CREDIT UNITS	PREREQUISITE(S)/ CO-REQUISITE(S)
OJT-ME	ME Industry Immersion (320 Hours)			3	3rd Year Standing, Permission of Program Chair or School Dean
	TOTAL			**3**	

FOURTH YEAR, FIRST SEMESTER

COURSE CODE	COURSE TITLE	LEC HRS	LAB HRS	CREDIT UNITS	PREREQUISITE(S)/ CO-REQUISITE(S)
ACVENTSYS	Airconditioning and Ventilation Systems	3	0	3	REFRIGSYS
CONTROLENG	Controls Engineering	2	0	2	BASETRON, BASETRONL
CONTROLENGL	Controls Engineering Laboratory	0	3	1	BASETRON, BASETRONL, Co-req: CONTROLENG
MACHDESIGN1	Machine Design 1	3	0	3	MACHELM
TECHENTREP	Technopreneurship	3	0	3	ENGGECON
MELAB-2	ME Laboratory 2	0	6	2	MELAB-1, FLUIDMACH
MEPROJECT1	ME Project Study 1	0	3	1	ME-MERES
POWERDESIGN	Power Plant Design with Renewable Energy	3	0	3	COMBUSTENG
POWERDESIGND	Power Plant Design with Renewable Energy Design	0	3	1	COMBUSTENG, Co-req: POWERDESIGN
ELECTIVE 1	ME Elective 1	2	0	2	
	TOTAL	**16**	**15**	**21**	

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COURSE CODE	COURSE TITLE	LEC HRS	LAB HRS	CREDIT UNITS	PREREQUISITE(S)/ CO-REQUISITE(S)
FOURTH YEAR, SECOND SEMESTER					
1LIT12	Great Books	3	0	3	None
OCCUSAFETY	Basic Occupational Safety and Health	3	0	3	3rd Year Standing
INPLANTENG	Industrial Plant Engineering	3	0	3	ACVENTSYS, Co-req: MIPROC
INPLANTENGD	Industrial Plant Engineering Design	0	3	1	ACVENTSYS, Co-reqs: MIPROC, INPLANTENG
MIPROC	Manufacturing and Industrial Processes with Plant Visits	1	3	2	ACVENTSYS
MACHDESIGN2	Machine Design 2	2	0	2	MACHDESIGN1
MACHDESIGN2D	Machine Design 2 Design	0	3	1	MACHDESIGN1, Co-req: MACHDESIGN2
MELAB-3	ME Laboratory 3	0	6	2	POWERDESIGN
ME-LAWS	ME Laws, Ethics, Codes and Standards	2	0	2	4ETHICS, 4th Year Standing
MEPROJECT2	ME Project Study 2	0	3	1	MEPROJECT1
ELECTIVE 2	ME Elective 2	2	0	2	
	TOTAL	**16**	**18**	**22**	

PROGRAM TOTAL   **191**

IMPORTANT: Registration in any subject is allowed only upon passing the prerequisite(s) of the said subject, if any.
A subject enrolled in violation of this rule will not be given any credit regardless of the grade obtained.

NOTES: The nth Year Standing means that the student must have completed at least 75% of the load requirements of the previous year level.

This curriculum is based on requirements specified by Commission on Higher Education (CHED) Memorandum Order No. 97, series of 2017: Policies, Standards and Guidelines for the Bachelor of Science in Mechanical Engineering Program.

SUGGESTED ELECTIVE COURSES

A. MECHATRONICS ENGINEERING

MECTRONICS	Mechatronics	2	0	2	4th Year Standing, CONTROLENG, CONTROLENGL
INTROBOT	Introduction to Robotics	2	0	2	4th Year Standing, CONTROLENG, CONTROLENGL
INDTBOT	Industrial Robots	2	0	2	4th Year Standing, CONTROLENG, CONTROLENGL

B. AUTOMOTIVE ENGINEERING

AUTOCONTROL	Automotive Control	2	0	2	4th Year Standing, COMBUSTENG
SAFETYMV	Safety of Motor Vehicles	2	0	2	4th Year Standing, COMBUSTENG
EFCONSYS	Engine Fuel Control Systems	2	0	2	4th Year Standing, COMBUSTENG
EMCONTROLS	Engine Emission and Control	2	0	2	4th Year Standing, COMBUSTENG
EFLUBRIC	Engine Friction and Lubrication	2	0	2	4th Year Standing, COMBUSTENG

COURSE CODE	COURSE TITLE	LEC HRS	LAB HRS	CREDIT UNITS	PREREQUISITE(S)/ CO-REQUISITE(S)

C. ENERGY ENGINEERING AND MANAGEMENT

COURSE CODE	COURSE TITLE	LEC HRS	LAB HRS	CREDIT UNITS	PREREQUISITE(S)/ CO-REQUISITE(S)
NENERGY	Nuclear Energy	2	0	2	4th Year Standing, POWERDESIGN, POWERDESIGND
SWENERGY	Solar Energy and Wind Energy Utilization	2	0	2	4th Year Standing, POWERDESIGN, POWERDESIGND
MHPOWER	Micro Hydro-Electric Power	2	0	2	4th Year Standing, POWERDESIGN, POWERDESIGND
ENERGYMAN	Energy Management in Buildings	2	0	2	4th Year Standing, POWERDESIGN, POWERDESIGND

D. COMPUTERS AND COMPUTATIONAL SCIENCE

COURSE CODE	COURSE TITLE	LEC HRS	LAB HRS	CREDIT UNITS	PREREQUISITE(S)/ CO-REQUISITE(S)
CADMANUFAC	Computer-Aided Design and Manufacturing	2	0	2	4th Year Standing, COMAPPS-ME
FINITEELEM	Finite Element Method	2	0	2	4th Year Standing, COMAPPS-ME
COMFLUIDY	Computational Fluid Dynamics	2	0	2	4th Year Standing, COMAPPS-ME

E. HEATING, VENTILATING, AIR-CONDITIONING AND REFRIGERATION

COURSE CODE	COURSE TITLE	LEC HRS	LAB HRS	CREDIT UNITS	PREREQUISITE(S)/ CO-REQUISITE(S)
HVAC-DTHERM	Design of Thermal Systems	2	0	2	4th Year Standing, ACVENTSYS
HVAC-QUALITY	Indoor Environmental Quality in Buildings	2	0	2	4th Year Standing, ACVENTSYS
HVAC-PIPE	Design of Building Piping System and Air-Conditioning Ductworks	2	0	2	4th Year Standing, ACVENTSYS