

SAINT LOUIS UNIVERSITY
SCHOOL OF ENGINEERING AND ARCHITECTURE
BACHELOR OF SCIENCE IN MECHATRONICS ENGINEERING
Effective A.Y 2018-2019

FIRST YEAR	Course No.	Course Descriptive Title	Units	Co/Pre-requisite	Course No.	Course Descriptive Title	Units	Co/Pre-requisite
	1st Semester				2nd Semester			
	EnggDraw	Engineering Drawing (LAB)	1		EnggCAD	Computer Aided Drafting (LAB)	1	EnggDraw
	EnggChem	Chemistry for Engineers (LEC)	3		GETHICS	Ethics	3	
	EnggChemL	Chemistry for Engineers (LAB)	1	with/after EnggChem	GART	Art Appreciation	3	
	EnggMath 1	Pre-Calculus	4		EnggMath 2	Differential Calculus	4	EnggMath 1
	GMATH	Mathematics in the Modern World	3		EnggMath 3	Engineering Data Analysis	3	with/after EnggMath2
	NSTP-CWTS 1	Foundations of Service	3		CFE 102	Christian Morality in Our Times	3	
	CFE 101	God's Journey with His People	3		FIT CS	Physical Activity Towards Health and Fitness (Combative Sports)	2	
	FIT HW	Physical Activity Towards Health and Fitness (Health and Wellness)	2		GIT	Living in the IT Era	3	
GRVA	Reading Visual Art	3			TOTAL UNITS	22		
	TOTAL UNITS		23					
Course No.	Course Descriptive Title	Units	Co/Pre-requisite					
Short Term								
EnggMath 4	Integral Calculus	4	EnggMath 2					
EnggPhys	Physics for Engineers (LEC)	3	EnggMath 2					
EnggPhysL	Physics for Engineers (LAB)	1	with/ after EnggPhys					
	TOTAL UNITS		8					

SECOND YEAR	Course No.	Course Descriptive Title	Units	Co/Pre-requisite	Course No.	Course Descriptive Title	Units	Co/Pre-requisite
	1st Semester				2nd Semester			
	ECE 2111	Electronics 1: Electronic Devices and Circuits	3	EnggPhys	TechWrite	Technical Writing	3	
	ECE 2111L	Electronics 1: Electronic Devices and Circuits	1	with/after ECE 2111	GPCOM	Purposive Communication	3	
	EnggEE 1	Basic Electrical Engineering (LEC)	2	EnggPhys	EnggEE 2	Electrical Machinery: AC/DC (LEC)	2	EnggEE 1
	EnggEE 1L	Basic Electrical Engineering (LAB)	1	with/after ECE 2111, EnggEE1	EnggEE 2L	Electrical Machinery: AC/DC (LAB)	1	with/after EnggEE2
	MEC 2111L	Workshop Theory and Practice (LAB)	2	EnggCAD	MEC 2211L	Machine Shop Theory (LAB)	2	MEC 2111L
	MEC 2121	Statics of Rigid Bodies for MEC	3	EnggPhys	MEC 2221	Dynamics of Rigid Bodies for ME	2	MEC 2121
	EnggMath 5	Differential Equations	3	EnggMath4	MEC 2231	Mechanics of Deformable Bodies	5	MEC 2121
	G HIST	Readings in Philippine History	3		ComProg	Computer Fundamentals and Programming (LAB)	2	
CFE 103	Catholic Foundation of Mission	3		CFE 104	CICM Missionary Identity	3	CFE 103	
FIT AQ	Physical Activity Towards Health and Fitness (Aquatics)	2		MEC 2241	Thermodynamics 1	3	MEC 2121	
GSELF	Understanding the Self	3		FIT OA	Physical Activity Towards Health and Fitness (Outdoor and Adventure Activities)	2		
	TOTAL UNITS		26		TOTAL UNITS		28	
Course No.	Course Descriptive Title	Units	Co/Pre-requisite					
Short Term								
GENTREP	The Entrepreneurial Mind	3						
NSTP-CWTS 2	Social Awareness and Empowerment for Service	3	NSTP-CWTS 1					
MEC 2281	Advanced Mathematics with Numerical Methods	3	EnggMath 4					
	TOTAL UNITS		9					

THIRD YEAR	Course No.	Course Descriptive Title	Units	Co/Pre-requisite	Course No.	Course Descriptive Title	Units	Co/Pre-requisite
	1st Semester				2nd Semester			
	MEC 3101	Instrumentation Technology (LEC)	2	ECE 2111	MEC 3201	Material Science & Engineering for MEC (LEC)	2	MEC 2261
	MEC 3101L	Instrumentation Technology (LAB)	1	with/afterMEC 3101	MEC 3201L	Material Science & Engineering for ME (LAB)	1	with/after MEC 3201
	MEC 3111	Switching Theory (LEC)	3	ECE 2111	MEC 3211	Programmable Logic Controller (LEC)	2	MEC 3101
	MEC 3111L	Switching Theory (LAB)	1	with/afterMEC 3111	MEC 3211L	Programmable Logic Controller (LAB)	1	with/after MEC 3211
	MEC 3121	Kinematics of Machines (LEC)	3	MEC 2221	MEC 3221	Machine Design (LEC)	2	MEC 3131
	MEC 3121L	Kinematics of Machines (LAB)	1	with/afterMEC 3121	MEC 3221L	Machine Design (LAB)	1	with/afterMEC 3221
	MEC 3141	Control System Engineering	3	ECE 2111	MEC 3231	Methods of Research for MEC	3	TechWrite
	MEC 3151	Fluids and Hydraulics (LEC)	2	MEC 2241	MEC 3241	Industrial and Power Electronics (LEC)	3	MEC 3141
MEC 3151L	Fluids and Hydraulics (LAB)	1	with/afterMEC 3151	MEC 3241L	Industrial and Power Electronics (LAB)	1	with/after MEC 3241	
MEC 3161	Refrigeration and Airconditiong (LEC)	2	MEC 2241	MEC 3251L	Computer Aided Design for ME/MeCe (LAB)	2	ComProg	
MEC 3161L	Refrigeration and Airconditiong (LAB)	1	with/afterMEC 3161	Techno 101	Technopreneurship	2	GENTREP	
CFE 105A	CICM in Action: Justice, Peace, and Integrity of Creation; Indigenous Peoples; and Interreligious Dialogue	1.5	CFE 103, CFE 104	Techno 101L	Technopreneurship (LAB)	1		
GCWORLD	The Contemporary World	3		CFE 105B	CICM in Action: Environmental Planning and Management; and Disaster Risk Reduction Management	1.5	CFE 105 A	
GRIZAL	The Life and Works of Rizal	3		GSTS	Science, Technology, and Society	3		
	TOTAL UNITS		27.5		TOTAL UNITS		25.5	
Course No.	Course Descriptive Title	Units	Co/Pre-requisite					
Short Term								
MEC 3261	On-the-Job Training for MECE (240 Hours)	3	MEC 3211					
	TOTAL UNITS		3					

	Course No.	Course Descriptive Title	Units	Co/Pre-requisite	Course No.	Course Descriptive Title	Units	Co/Pre-requisite
FOURTH YEAR	1st Semester				2nd Semester			
	MEC 4111	Advanced Computer System and Information Technology (LEC)	3	ComProg	MEC 4211	Mechatronics System Design Lecture (LEC)	3	MEC 4111
	MEC 4111L	Advanced Computer System and Information Technology (LAB)	1	with/after MEC 4111L	MEC 4211L	Mechatronics System Design Laboratory (LAB)	1	with/after MEC 4211L
	MEC 4121	Advanced PLC and System Integration (HMI & SCADA) (LEC)	3	MEC 3211	MEC 4221	Robotics Lecture (LEC)	3	MEC 4131
	MEC 4121L	Advanced PLC and System Integration (HMI & SCADA) (LAB)	1	with/after MEC 4121L	MEC 4221L	Robotics Laboratory (LAB)	1	with/after MEC 4221L
	MEC 4131	Embedded Systems (LEC)	3	MEC 3241	MEC 4231	Automation System Design (LEC)	3	MEC 4121
	MEC 4131L	Embedded Systems (LAB)	1	with/after MEC 4131L	MEC 4231L	Automation System Design (LAB)	1	with/after MEC 4231L
	MEC 4141	Design/Capstone Project 1	1	MEC 3231	MEC 4241L	Design/Capstone Project 2	1	MEC 4151
	MEC 4151	Basic Occupational Safety & Health for ME	3	MEC 2231L	MEC 4251	Codes, Standards and Professional Ethics	2	MEC 4151
	CFE 106A	Embracing the CICM Mission	1.5	CFE 105B	EnggMan	Engineering Management	3	EnggEcon
	EnggEcon	Engineering Economics	3	Techno 101	CFE 106B	Embracing the CICM Mission	1.5	CFE 106 A
		TOTAL UNITS	20.5		EnggEnvi	Environmental Sciences and Engineering	3	MEC 3201
						TOTAL UNITS	22.5	
		TOTAL PROGRAM UNITS	215					

NOTE 1. The maximum load a graduating student allowed to enroll is regular load plus 6 units (Regular Semester); regular load plus 3 units (Short term)

2. The year level is based on the 70% of the subjects enrolled in the current term

3. Regular students are those with no advanced and back subjects based on the checklist

4. Required units:215