



**College of Engineering**  
 Main, Lapu-Lapu Mandaue  
**Bachelor of Science in Electrical Engineering (BSEE)**  
 CMO No. 88, Series of 2017  
 Effective School Year 2024-2025

Name: \_\_\_\_\_  
 ID Number: \_\_\_\_\_

Date Started/First Enrolled: \_\_\_\_\_  
 Expected Date of Graduation: \_\_\_\_\_

**FIRST YEAR**

	Course Code	Descriptive Title	Lec Units	Lab Units	Total Units	Pre / Co Requisite
	<b>1<sup>st</sup> Semester</b>	PSYCH 101	Understanding the Self	3	0	3
ENGL 101		Purposive Communication	3	0	3	
MATH 100E		College Mathematics	3	0	3	
MATH 101E		Mathematics in the Modern World	3	0	3	
EMATH 111		Calculus 1	3	0	3	EBR 101 (For Non-Stem Only)
CHEM 111		Chemistry for Engineers	3	1	4	EBR 102 (For Non-Stem Only)
BES 101		Engineering Drawing	0	1	1	
BES 103A		Computer Programming	0	1	1	
PE 101		Movement Competency Training (PATHFit 1)	2	0	2	
NSTP 101		National Services Training Program 1	3	0	3	
<b>Total</b>					<b>26</b>	
<b>2<sup>nd</sup> Semester</b>	LIT 101	Literature of the World	3	0	3	
	RIZAL 101	Life & Works of Dr. Jose Rizal	3	0	3	
	STS 101	Science, Technology and Society	3	0	3	
	EMATH 121	Calculus 2	3	0	3	EMATH 111
	EMATH 122	Engineering Data Analysis	3	0	3	
	PHYS 121	Physics for Engineers	3	1	4	EMATH 121
	BES 102A	Computer-Aided Drafting	0	1	1	BES 101
	PE 102	Exercise-based Fitness Activities (PATHFit 2)	2	0	2	PE 101
	NSTP 102	National Services Training Program 2	3	0	3	NSTP 101
	<b>Total</b>					<b>25</b>

**Engineering Bridging Courses for Non-STEM:**

EBR 101 – Pre-Calculus	3	0	3
EBR 102 – General Chemistry	2	1	3
EBR 103 – General Physics	2	1	3

**SECOND YEAR**

	Course Code	Descriptive Title	Lec Units	Lab Units	Total Units	Pre / Co Requisite
	<b>1<sup>st</sup> Semester</b>	HIST 101	Readings in Philippine History	3	0	3
HUM 101		Art Appreciation	3	0	3	
SOCIO 101		The Contemporary World	3	0	3	
EMATH 211		Differential Equations	3	0	3	EMATH 121
AS 101A		Thermodynamics 1	2	0	2	PHYS 121
MECH 211		Engineering Mechanics	3	0	3	PHYS 121
MECH 222A		Fluid Mechanics	2	0	2	PHYS 121
EE 211		Electrical Circuits 1	3	1	4	EMATH 121, PHYS 121
EETVET 211		Shop Theory & Practice 1	0	1	1	EE 211
PE 103		Sports and Dance (PATHFit 3)	2	0	2	PE 101, PE 102
<b>Total</b>					<b>26</b>	
<b>2<sup>nd</sup> Semester</b>	HUM 102	Philippine Popular Culture	3	0	3	HUM 101
	SOCIO 102	Gender and Society	3	0	3	SOCIO 101
	MECH 225	Fundamentals of Deformable Bodies	2	0	2	MECH 211
	ECE 221A	Electronics Circuits: Devices and Analysis	3	1	4	EE 211
	EMATH 222A	Engineering Mathematics for EE	3	0	3	EMATH 211
	EE 221	Electrical Circuits 2	3	1	4	EE 211
	EE 222A	Electromagnetics for EE	2	0	2	PHYS 121, EMATH 211
	EETVET 221	Shop Theory and Practice 2	0	1	1	EETVET 211
	PE 104	Sports, Outdoor & Adventure Activities (PATHFit 4)	2	0	2	PE 101, PE 102
	<b>Total</b>					<b>24</b>



THIRD YEAR						
	Course Code	Descriptive Title	Lec Units	Lab Units	Total Units	Pre / Co Requisite
1 <sup>st</sup> Semester	BES 104	Engineering Economics	3	0	3	EMATH 122
	CPE 311B	Logic Circuits and Switching Theory	0	2	2	ECE 221A
	ECE 312A	Fundamentals of Electronic Communications	3	0	3	ECE 221A
	ECE 321A	Industrial Electronics	3	1	4	ECE 221A
	EMATH 311	Numerical Methods and Analysis	2	1	3	EMATH 222A
	EE 310A	Advanced Electrical Circuits Theory	0	1	1	EE 221
	EE 311B	Electrical Machines 1	2	1	3	EE 221
	EE 312	Research Methods for EE	0	1	1	EMATH 122, ENGL 101
	EE EC 1	Enhancement Course 1	0	1	1	EMATH 222A
	<b>Total</b>					<b>21</b>
2 <sup>nd</sup> Semester	PHILO 101	Ethics	3	0	3	
	BES 105	Basic Occupational Safety and Health	3	0	3	3rd Year Standing
	BES 106A	Environmental Science and Engineering	2	0	2	CHEM 111
	CPE 322B	Microprocessor Systems	1	1	2	CPE 311B
	ECE 323B	Feedback Control Systems	2	0	2	EMATH 222A, ECE 221A
	EE 320	EE Design Project 1	0	1	1	EE 312, 3rd Year Standing
	EE 321	Electrical Machines 2	3	1	4	EE 310A, EE 311B
	EE 322	Electrical Apparatus and Devices	2	1	3	EE 310A, EE 311B
	EE EC 2	Enhancement Course 2	0	1	1	EE EC 1
	<b>Total</b>					<b>21</b>
Summer	Course Code	Descriptive Title	Lec Units	Lab Units	Total Units	Pre / Co Requisite
	EE 331	On-The-Job Training	3	1	4	EE 321, EE 322, BES 105
<b>Total</b>					<b>4</b>	

FOURTH YEAR						
	Course Code	Descriptive Title	Lec Units	Lab Units	Total Units	Pre / Co Requisite
1 <sup>st</sup> Semester	BES 108A	Materials Science and Engineering	2	0	2	CHEM 111
	TECHNO 101	Technopreneurship	3	0	3	4th Year Standing
	EE 410A	EE Laws, Codes and Professional Ethics	2	0	2	PHILO 101
	EE 411	Electrical Standards and Practices	0	1	1	EE 410A
	EE 412	Electrical Systems and Illumination Engineering Design	3	2	5	EE 321
	EE 413A	Instrumentation and Control	2	1	3	ECE 323B
	EE 415A	Management of Engineering Projects	2	0	2	BES 104
	EE 416	EE Design Project 2	0	1	1	EE 320
	EE EC 3	Enhancement Course 3	0	1	1	EE EC 2
	<b>Total</b>					<b>20</b>
2 <sup>nd</sup> Semester	EE 421	Power System Analysis	3	1	4	EE 411, EE 412
	EE 423	Seminars/Colloquia	0	1	1	EE 416
	EE 424	Distribution Systems and Substation Design	2	1	3	EE 421
	EE 425	Fundamentals of Power Plant Engineering Design	0	1	1	EE 421
	EE EC 4	Enhancement Course 4	0	1	1	EE EC 3
	EE FR EL 1	Elective 1	3	0	3	EE 421
	EE FR EL 2	Elective 2	3	0	3	EE 421
	<b>Total</b>					<b>16</b>

I. TECHNICAL COURSES:

A. Mathematics	12	units
B. Natural/Physical Sciences	8	units
C. Basic Engineering Sciences	10	units
D. Allied Courses	31	units
E. Professional Courses (OJT, Electives)	61	units
<b>SUB-TOTAL</b>	<b>122</b>	<b>units</b>

SUGGESTED ELECTIVES:

1. Power System Protection
2. Advanced Power System Analysis & Design
3. Advanced Electrical Systems D
4. Special Studies in Renewable Energy Resources
5. Machine Automation and Process Control

II. NON-TECHNICAL COURSES:

A. General Education Courses	50	units
<b>SUB-TOTAL</b>	<b>50</b>	<b>units</b>

III. INSTITUTIONAL, ENGINEERING BRIDGING & OTHER COURSES:

A. Institutional Course	3	units
B. Engineering Bridging Courses	9	units
C. Other Courses	8	units
<b>SUB-TOTAL</b>	<b>20</b>	<b>units</b>
<b>GRAND TOTAL:</b>	<b>183</b>	<b>units (STEM Enrollees)</b>
<b>GRAND TOTAL:</b>	<b>192</b>	<b>units (Non-STEM Enrollees)</b>

ENGR. BRYAN O. CALMA  
BSEE Chairman, UC Main

ENGR. JUNREY C. BACUS  
BSEE Chairman, UC Lapu-Lapu Mandaue

ENGR. GREG R. BELONGILOT  
Dean, College of Engineering, UC Main

ENGR. ROLAND B. FERNANDEZ  
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