



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
Guide for Non-STEM Students

Name: _____
 ID Number: _____

Date Started/First Enrolled: _____
 Expected Date of Graduation: _____

FIRST YEAR

FIRST YEAR						
	Course Code	Descriptive Title	Lec Units	Lab Units	Total Units	Pre / Co Requisite
1st Semester	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	
	EBR 101	Pre-Calculus	3	0	3	
	EBR 102	General Chemistry	2	1	3	
	EBR 103	General Physics	2	1	3	
	PE 101	Movement Competency Training (PATHFit 1)	2	0	2	
	NSTP 101	National Services Training Program 1	3	0	3	
Total					26	
2nd Semester	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 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	
	EMATH 122	Engineering Data Analysis	3	0	3	
	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
Total					25	
Summer	EMATH 121	Calculus 2	3	0	3	EMATH 111
	PHYS 121	Physics for Engineers	3	1	4	EMATH 121
	BES 102A	Computer-Aided Drafting	0	1	1	BES 101
	BES 103A	Computer Programming	0	1	1	
	Total					9

SECOND YEAR

SECOND YEAR						
	Course Code	Descriptive Title	Lec Units	Lab Units	Total Units	Pre / Co Requisite
1st Semester	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
Total					26	
2nd Semester	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	Electrincoc 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
Total					24	

THIRD YEAR

1 st Semester	Course Code	Descriptive Title	Lec Units	Lab Units	Total Units	Pre / Co Requisite
	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
Total					21	

2 nd Semester	Course Code	Descriptive Title	Lec Units	Lab Units	Total Units	Pre / Co Requisite
	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
Total					21	

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
	Total					4

FOURTH YEAR

1 st Semester	Course Code	Descriptive Title	Lec Units	Lab Units	Total Units	Pre / Co Requisite
	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
Total					20	

2 nd Semester	Course Code	Descriptive Title	Lec Units	Lab Units	Total Units	Pre / Co Requisite
	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
Total					16	

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)	<u>61</u>	units
SUB-TOTAL	122	units

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	<u>50</u>	units
SUB-TOTAL	50	units

III. INSTITUTIONAL, ENGINEERING BRIDGING & OTHER COURSES:

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

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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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