



COLLEGE OF ENGINEERING
BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING CURRICULUM
 (ENHANCED CURRICULUM 2024)

FIRST YEAR													
FIRST SEMESTER						SECOND SEMESTER							
Course Code	Course Description	No. of Hours		Units	Pre-Requisite	Co-Requisite	Course Code	Course Description	No. of Hours		Units	Pre-Requisite	Co-Requisite
		Lec	Lab						Lec	Lab			
MATH 110	Pre-Calculus	3	0	3			MATH 112	Calculus 2	5	0	5	MATH 111, MATH 110	
MATH 111	Calculus 1	5	0	5			ES 111	Computer Programming	0	3	1		
CHEM 111	Chemistry for Engineers (Lec)	3	0	3			ES 112L	Engineering Drawing and Plans	0	3	1		
CHEM 111L	Chemistry for Engineers (Lab)	0	3	1			PHYS 111	Physics for Engineers (Lec)	3	0	3	MATH 111, MATH 110	PHYS 111L & MATH 112
GE-MW	Mathematics in the Modern World	3	0	3			PHYS 111L	Physics for Engineers (Lab)	0	3	1		PHYS 111
GE-ST	Science, Technology & Society	3	0	3			PHYS 112	Physics for Electrical Engineers	3	0	3	MATH 111, MATH 110	PHYS 111
GE-GS	Gender & Society	3	0	3			GE-US	Understanding the Self	3	0	3		
GE-PE	Peace Education	3	0	3			GE-CW	Contemporary World	3	0	3		
PE 11	PATHFit 1 Movement Competency Training	2	0	2			GE-E	Ethics	3	0	3		
NSTP 111	National Service Training Program 1	3	0	3			PE 12	PATHFIT 2 Exercise-Based Fitness Activities	2	0	2	PE 11	
TOTAL		28	3	29			NSTP 112	National Service Training Program 2	3	0	3	NSTP 111	
TOTAL									25	9	28		

SECOND YEAR													
FIRST SEMESTER						SECOND SEMESTER							
Course Code	Course Description	No. of Hours		Units	Pre-Requisite	Co-Requisite	Course Code	Course Description	No. of Hours		Units	Pre-Requisite	Co-Requisite
		Lec	Lab						Lec	Lab			
MATH 113	Differential Equations	3	0	3	MATH 112		MATH 114	Engineering Data Analysis	3	0	3	MATH 112, MATH 113	
ES 113	Engineering Mechanics	5	0	5	2nd Year Standing	MATH 112	ES 116	Electronic Circuits: Devices & Analysis (Lec)	3	0	3	EE 111, EE 111L	EE 112, ES 116L
ES 114L	Computer-Aided Drafting	0	3	1	ES 112		ES 116L	Electronic Circuits: Devices & Analysis (Lab)	0	3	1		ES 116
ES 115	Environmental Science & Engineering	3	0	3	CHEM 111		ES 117	Fundamentals of Deformable Bodies	2	0	2	ES 113	
EE 111	Electrical Circuits 1	3	0	3	PHYS 112 & MATH 112	EE 111L	ES 118	Electromagnetics	3	0	3	PHYS 111, PHYS 112, MATH 113	
EE 111L	Electrical Circuits 1	0	3	1		EE 111	ES 119	Basic Thermodynamics	2	0	2	PHYS 111	
GE-PI	Philippine Indigenous People's Studies	3	0	3			EE 112	Electrical Circuits 2 (Lec)	3	0	3	EE 111	EE 113, EE 112L, ES 116
GE-PC	Purposive Communication	3	0	3			EE 112L	Electrical Circuits 2 (Lab)	0	3	1	EE 111L	EE 112
ES 123	Engineering Economy	3	0	3	2nd Year Standing		EE 113	Advanced Engineering Math for EE	3	0	3	MATH 113	MATH 114
PE 21	PATHFit 3 Individual/ Dual Sports	2	0	2	PE 12		GE-AA	Art Appreciation	3	0	3		
TOTAL		25	6	27			PE 22	PATHFIT 4 Team Sports	2	0	2	PE 21	
TOTAL									24	6	26		

THIRD YEAR													
FIRST SEMESTER						SECOND SEMESTER							
Course Code	Course Description	No. of Hours		Units	Pre-Requisite	Co-Requisite	Course Code	Course Description	No. of Hours		Units	Pre-Requisite	Co-Requisite
		Lec	Lab						Lec	Lab			
ES 120	Logic Circuits & Switching Theory (Lec)	3	0	3	ES 116, ES 116L	ES 120L	ES 124	Microprocessor Systems (Lec)	3	0	3	ES 120, ES 120L	ES 124L
ES 120L	Logic Circuits & Switching Theory (Lab)	0	3	1		ES 120	ES 124L	Microprocessor Systems (Lab)	0	3	1		ES 124
ES 121	Industrial Electronics	3	0	3	ES 116, ES 116L	ES 121L	ES 125	Technopreneurship	3	0	3	3rd Year Standing	
ES 121L	Industrial Electronics Lab	0	3	1		ES 121	ES 126	Basic Occupational Safety & Health	3	0	3	3rd Year Standing	
ES 122	Fundamentals of Electronic Communications	3	0	3	ES 116	ES 120	ES 127	Fluid Mechanics	2	0	2	PHYS 111	
GE-PH	Readings in Philippine History	3	0	3			EE 118	Electrical Machines 2 (Lec)	3	0	3	EE 114, EE 114L	EE 118L
EE 114	Electrical Machines 1 (Lec)	2	0	2	ES 118 & EE 111	EE 114L	EE 118L	Electrical Machines 2 (Lab)	0	3	1		EE 118
EE 114L	Electrical Machines 1 (Lab)	0	3	1	EE 111L	EE 114	EE 119	Electrical Apparatus & Devices (Lec)	2	0	2	EE 114, EE 114L	EE 119L
EE 115	Numerical Methods & Analysis (Lec)	2	0	2	EE 113	EE 115L	EE 119L	Electrical Apparatus & Devices (Lab)	0	3	1		EE 119
EE 115L	Numerical Methods & Analysis (Lab)	0	3	1	EE 113	EE 115	EE 120	Feedback Control Systems (Lec)	2	0	2	EE 113, EE 112, EE 112L	EE 120L
EE 116	Electrical Circuits 3	2	0	2	EE 112	EE 114	EE 120L	Feedback Control Systems (Lab)	0	3	1		EE 120
EE 117	Research Methods	3	0	3	MATH 114		EE 121	EE Laws, Codes & Professional Ethics	2	0	2	3rd Year Standing	
IC 111L	Community-Based Engagement for Engineering	0	3	1	3rd Year Standing		EE 122L	EE Design Project 1	0	3	1	EE 117, EE 114	EE 120
TOTAL		21	15	26			RIZAL	Rizal's Life & Works	3	0	3		
TOTAL									23	15	28		

MID YEAR						
Course Code	Course Description	No. of Hours		Units	Pre-Requisite	Co-Requisite
		Lec	Lab			
EE 123	On-the-Job Training (240 hours)	2	3	3		Completed all technical courses prior to OJT
TOTAL		2	3	3		

FOURTH YEAR													
FIRST SEMESTER						SECOND SEMESTER							
Course Code	Course Description	No. of Hours		Units	Pre-Requisite	Co-Requisite	Course Code	Course Description	No. of Hours		Units	Pre-Requisite	Co-Requisite
		Lec	Lab						Lec	Lab			
EE 124L	Industrial Wiring & Motor Controls	0	3	1	4th year standing		ES 128	Material Science & Engineering	3	0	3	4th Year Standing, CHEM 111	
EE 125	Electrical Systems & Illumination Engineering Design (Lec)	3	0	3	EE 118, EE	EE 125L	EE 133	Power System Analysis (Lec)	3	0	3	EE 131L, EE	EE 133L

EE 125L	Electrical Systems & Illumination Engineering Design (Lab)	0	6	2	118L	EE 125	EE 133L	Power System Analysis (Lab)	0	3	1	127	EE 133
EE 126	Instrumentation & Control (Lec)	2	0	2	EE 120, EE 120L	EE 126L	EE 134	Distribution System & Substation Design (Lec)	2	0	2	EE 128	EE 133, EE 133L, & EE 134L
EE 126L	Instrumentation & Control (Lab)	0	3	1		EE 126	EE 134L	Distribution System & Substation Design (Lab)	0	3	1		EE 133, EE 133L, & EE 134
EE 127	Electrical Transmission & Distribution Systems	3	0	3	EE 118 & EE 119		EE 135	Fundamentals of Power Plant Engineering Design (Lec)	2	0	3	EE 131L	EE 133, EE 133L, & EE 135L
EE 128	EE Elective 1: Power Systems - Generation & Transmission	3	0	3	4th year standing	EE 127	EE 135L	Fundamentals of Power Plant Engineering Design (Lab)	0	3	1		EE 133, EE 133L, & EE 135
EE 129	Management of Engineering Projects	2	0	2	ES 124		EE 136L	Seminars/Colloquia	0	3	1	4th year standing	
EE 130	Course Appraisal 1	5	0	5	4th year standing	EE 124, EE 125, EE 126, EE 127	EE 137	EE Elective 2: Power Systems - Distribution System & Supply	3	0	3	EE 128	
EE 131L	Electrical Standards & Practices	0	3	1	EE 121		EE 138	Course Appraisal 2	5	0	5	EE 130	EE 134, EE 135
EE 132L	EE Design Project 2	0	3	1	EE 122	EE 129							
TOTAL		18	18	24			TOTAL		18	12	24		
							GRAND TOTAL		184	84	214		