



**COLLEGE OF ENGINEERING**  
**BACHELOR OF SCIENCE IN ELECTRONICS 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 111	Math 112	Calculus 2	5	0	5	Math 111, Math 110	
Math 111	Calculus 1	5	0	5		Math 110	ES 112L	Computer Programming	0	6	2	Math 110	
Chem 111	Chemistry for Engineers(Lec)	3	0	3		Chem 111L	Phys 111	Physics for Engineers(Lec)	3	0	3	Math 111, Math 110	Phys 111L, Phys 112, Phys 112L
Chem 111L	Chemistry for Engineers(Lab)	0	3	1		Chem 111	Phys 121L	Physics for Engineers(Lab)	0	3	1	Math 111, Math 110	Phys 111, Phys 112, Phys 112L
ES 111L	Engineering Drawings and Plans	0	3	1			Phys 112	Physics for ECE(Lec)	3	0	3	Math 111, Math 110	Phys 112L, Phys 121, Phys 121L
GE-MW	Mathematics in Modern World	3	0	3			Phys 112L	Physics for ECE (Lab)	0	3	1	Math 111, Math 110	Phys 122, Phys 111, Phys 111L
GE-ST	Science, Technology and Society	3	0	3			GE-US	Understanding the Self	3	0	3		
GE-PC	Purposive Communication	3	0	3			GE-CW	Contemporary World	3	0	3		
PE 11	PATHFIT 1: Movement Competency Training	2	0	2			PE 12	PATHFIT 2: Exercise-based Fitness Activities	2	0	2	PE 11	
NSTP 111	National Service Training Program 1	3	0	3			NSTP 121	National Service Training Program 2	3	0	3	NSTP 111	
<b>Total</b>		<b>25</b>	<b>6</b>	<b>27</b>			<b>Total</b>		<b>22</b>	<b>12</b>	<b>26</b>		

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 110, Math 111	
ES 113L	Computer-aided Drafting	0	3	1	ES 111		ES 115	Engineering Management	2	0	2	ES 107	
ES 114	Engineering Economy	3	0	3	2nd yr standing		ECE 113	Circuits 2 (Lec)	3	0	3	ECE 111, ECE 113L	ECE 113L
ECE 111	Circuits 1(Lec)	3	0	3	PHYS 111, PHYS 111L, PHYS 112, PHYS 112L	ECE 112, ECE 112L	ECE 113L	Circuits 2 (Lab)	0	3	1	ECE 111, ECE 111L	ECE 113
ECE 111L	Circuits 1 (Lab)	0	3	1	PHYS 111, PHYS 111L, PHYS 112, PHYS 112L	ECE 112, ECE 112L	ECE 114	Electronics 2 -Electronic Circuit Analysis (Lec)	3	0	3	ECE 111, ECE 111L, ECE 112, ECE 112L	ECE113, ECE 113L
ECE 112	Electronics 1- Electronic Devices and Circuits (Lec)	3	0	3	PHYS 111, PHYS 111L, PHYS 112, PHYS 112L	ECE 111, ECE 111L	ECE 114L	Electronics 2 -Electronic Circuit Analysis (Lab)	0	3	1	ECE 111, ECE 111L, ECE 112, ECE 112L	ECE114, ECE 113L
ECE 112L	Electronics 1- Electronic Devices and Circuits (Lab)	0	3	1	PHYS 111, PHYS 111L, PHYS 112, PHYS 112L	ECE 111, ECE 111L	ECE 115	Electromagnetics	4	0	4	MATH 113, ECE111, ECE 111L	ECE113, ECE 113L
GE-PE	Peace Education	3	0	3			ECE 116	Advanced Engineering Math for ECE (Lec)	3	0	3	MATH 113	ECE 116L
GE-E	Ethics	3	0	3			ECE 116L	Advanced Engineering Math for ECE (Lab)	0	3	1	MATH 113	ECE 116
GE-PH	Readings in Philippine History with IP Education	3	0	3			ECE 117	Communications 1 - Principles of Communication (Lec)	3	0	3	ECE112, ECE 112L	ECE 117L
PE 21	PATHFIT 3: Individual/Dual Sports	2	0	2	PE 12		ECE 117L	Communications 1 - Principles of Communication (Lab)	0	3	1	ECE112, ECE 112L	ECE 117
<b>Total</b>		<b>23</b>	<b>9</b>	<b>26</b>			<b>Total</b>		<b>23</b>	<b>12</b>	<b>27</b>		

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			
ECE 118	Communications 2 - Modulation and Coding Techniques (Lec)	3	0	3	ECE 117, ECE 117L	ECE 118L	ES 116	Technopreneurship	3	0	3	3rd yr. standing	
ECE 118L	Communications 2 - Modulation and Coding Techniques (Lab)	0	3	1	ECE 117, ECE 117L	ECE 118	ECE 124	Digital Electronics 2: Microprocessor, Microcontroller System and Design (Lec)	3	0	3	ECE121, ECE 121L, ES 112	ECE 124L
ECE 119	Electronics 3 - Electronics System and Design (Lec)	3	0	3	ECE 114, ECE 114L	ECE 119L	ECE 124L	Digital Electronics 2: Microprocessor, Microcontroller System and Design (Lab)	0	3	1	ECE121, ECE121L, ES 112	ECE 124
ECE 119L	Electronics 3 - Electronics System and Design (Lab)	0	3	1	ECE 114, ECE 114L	ECE 119	ECE 125	Communications 3 - Transmission Media and Antenna System Design (Lec)	3	0	3	ECE 118, ECE 118L	ECE 125L, ECE 126
ECE 120	Numerical Methods for ECE (Lec)	3	0	3	ECE 116, ECE 116L	ECE 120L	ECE 125L	Communications 3 - Transmission Media and Antenna System Design (Lab)	0	3	1	ECE 118, ECE 118L	ECE125, ECE 126L
ECE 120L	Numerical Methods for ECE (Lab)	0	3	1	ECE 116, ECE 116L	ECE 120	ECE 126	Communications 4 - Data Communications (Lec)	3	0	3	ECE121, ECE 121L	ECE124, ECE 126L
ECE 121	Digital Electronics 1: Logic Circuits and Switching Theory (Lec)	3	0	3	ECE 112, ECE 112L	ECE 121L	ECE 126L	Communications 4 - Data Communications (Lab)	0	3	1	ECE121, ECE 121L	ECE124, ECE 126
ECE 121L	Digital Electronics 1: Logic Circuits and Switching Theory (Lab)	0	3	1	ECE 112, ECE 112L	ECE 121	ECE 127	Feedback and Control Systems (Lec)	3	0	3	ECE120, ECE 120L	ECE 127L
ECE 122	Signals, Spectra, and Signal Processing (Lec)	3	0	3	ECE 116, ECE 116L	ECE 120, ECE 120L	ECE 127L	Feedback and Control Systems (Lab)	0	3	1	ECE120, ECE 120L	ECE 127
ECE 122L	Signals, Spectra, and Signal Processing (Lab)	0	3	1	ECE 116, ECE 116L	ECE 120, ECE 120L	ECE 128L	ECE Design 1	0	3	1	ECE123, 3rdyr. Standing	ECE 127
ECE 123	Research Methods	3	0	3	MATH 114, 3rd Year Standing	ECE 120	GE-PI	Philippine Indigenous Peoples' Studies	3	0	3		
GE-GS	Gender and Society	3	0	3			RIZAL	Rizal's Life & Works	3	0	3		
IC 111L	Community-Based Engagement for ECE	0	3	1	3rd Year Standing		<b>TOTAL</b>		<b>21</b>	<b>15</b>	<b>26</b>		
<b>TOTAL</b>		<b>21</b>	<b>18</b>	<b>27</b>									

3rd Year - Midyear

Course No.	Descriptive Title	No. of Hours		Units	Pre-requisite	Co-requisite
		LEC	LAB			

ECE 129	On-the-Job Training (240 hours)					3	3	4	Completed all Technical Courses prior to OJT				
<b>TOTAL</b>						<b>3</b>	<b>3</b>	<b>4</b>					
<b>FOURTH YEAR</b>													
<b>FIRST SEMESTER</b>						<b>SECOND SEMESTER</b>							
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 117	Environmental Science and Engineering	3	0	3	Chem 111, Chem 111L		ES 118	Material Science and Engineering	3	0	3	4TH Year Standing	
ECE 130L	ECE Design 2	0	3	1	ECE 128L		ECE 134	Field Trips, Seminars, and Colloquia	0	3	1	4TH Year Standing	
ECE 131	Advanced Communications System and Design (Lec)	3	0	3	ECE 126L	ECE 131L	ECE 135	ECE Laws, Contracts, and Ethics, Standards and Safety	3	0	3	4TH Year Standing	
ECE 131L	Advanced Communications System and Design (Lab)	0	3	1	ECE 126, ECE 126L	ECE 131	ECE 136	Advanced Networking (Lec)	3	0	3	ECE131, ECE 131L	ECE 136L
ECE 132	Advanced Instrumentation and Control (Lec)	3	0	3	ECE 126, ECE 126L, ECE 124L	ECE 132L	ECE 136L	Advanced Networking (Lab)	0	3	1	ECE131, ECE 131L	ECE 136
ECE 132L	Advanced Instrumentation and Control (Lab)	0	3	1	ECE 127L,	ECE 132	ECE 137	Course Appraisal 2	5	0	5	ECE 133	
ECE 133	Course Appraisal 1	5	0	5	4th year standing		ECE 138	Robotics Technology (Lec)	3	0	3	ECE 132, ECE 132L	ECE 138L
GE-AA	Art Appreciation	3	0	3			ECE 138L	Robotics Technology (Lab)	0	3	1	ECE 132, ECE 132L	ECE 138
<b>TOTAL</b>		<b>17</b>	<b>9</b>	<b>20</b>			<b>TOTAL</b>		<b>17</b>	<b>9</b>	<b>20</b>		
<b>GRAND TOTAL</b>									<b>172</b>	<b>93</b>	<b>203</b>		