

Name: _____



ANDRES BONIFACIO COLLEGE, INC.
College Park, Dipolog City
SCHOOL OF ENGINEERING



BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING
EFFECTIVE AY 2023 -2024

FIRST YEAR

Grade	Course No.	Description	Lec hrs per week	Lab hrs per week	Total unit	Pre-requisite
FIRST SEMESTER						
_____	EM 11	Calculus 1	5	0	5	
_____	Chem 111	Chemistry for Engineers	3	3	4	
_____	ES 11	Engineering Drawing and Plans	0	3	1	
_____	ES 22	Computer Programming 1	1	3	2	
_____	ER 11	Special Enhancement Course for Engineering	3	0	3	
_____	EE 11	Electrical Wiring and Rewinding	0	3	1	
_____	GEC 211	Mathematics in the Modern World	3	0	3	
_____	GEC 111	Understanding the Self	3	0	3	
_____	GEC 123	Purposive Communication	3	0	3	
_____	PATHFiT 1	Movement Competency Training	2	0	2	
_____	NSTP 111	National Service Training Program I	(3)	0	(3)	
			23	12	27	

SECOND SEMESTER						
_____	EM 16	Calculus 2	5	0	5	EM11, ER11
_____	Phy 121	Physics for Engineers	3	3	4	EM11, ER11
_____	ES 16	Computer-Aided Drafting	0	3	1	ES11, ER11
_____	GEC 122	Art Appreciation	3	0	3	
_____	GEC 113	The Contemporary World	3	0	3	
_____	GEC 124	Science, Technology and Society	3	0	3	
_____	Rizal 121	Rizal's Life, Works and Writings	3	0	3	
_____	MST 122	Living in the IT Era	3	0	3	
_____	PATHFiT 2	Exercise-based Fitness Activities	2	0	2	PATHFit1
_____	NSTP 121	National Service Training Program II	(3)	0	(3)	NSTP111
			25	6	27	

SECOND YEAR

FIRST SEMESTER						
_____	EM 21	Differential Equations	3	0	3	EM16
_____	EM 22	Engineering Data Analysis	3	0	3	EM11
_____	ES 21	Statics of Rigid Bodies	3	0	3	Phy121, EM16
_____	EE 21	Electrical Circuits 1	3	3	4	Phy121, EM16
_____	ME 21	Thermodynamics 1	3	0	3	Phy121, EM16
_____	LIT 311	Philippine Literature	3	0	3	
_____	GEC 112	Readings in Philippine History	3	0	3	
_____	PATHFiT 3	Dance/ Sports/ Martial Arts/ Group Exercise/ Outdoor and Adventure Activities	2	0	2	PATHFit2
			23	3	24	

SECOND SEMESTER						
_____	EM 26	Advanced Engineering Mathematics	3	3	4	EM21
_____	ES 26	Dynamics of Rigid Bodies	3	0	3	ES21
_____	ES 27	Mechanics of Deformable Bodies	4	0	4	ES26
_____	EE 26	Electrical Circuits 2	3	3	4	EE21
_____	ECE 26	Electromagnetics	4	0	4	Phy121, EM21
_____	ECE 28	Electronic Circuits, Devices and Analysis	3	3	4	Co-Req. EE21
_____	GEC 115	Gender and Society	3	0	3	
_____	PATHFiT 4	Dance/ Sports/ Martial Arts/ Group Exercise/ Outdoor and Adventure Activities	2	0	2	PATHFit3
			25	9	28	

THIRD YEAR

FIRST SEMESTER

ES	31	Engineering Economics	3	0	3	EM22
ES	32	Mechanics of Fluids	3	0	3	Co-req. ME21
ES	33	Materials Science and Engineering	3	0	3	Chem111, ES27
EM	31	Numerical Methods and Analysis	3	3	4	EM26
EE	31	Electrical Machines 1	2	3	3	ECE26, EE26
ECE	32	Logic Circuits and Switching Theory	3	3	4	ECE28
ECE	33	Principles of Communications Systems	3	3	4	ECE26, ECE28
SSP	123	Indigenous People's Studies with Peace Education	3	0	3	
			23	12	27	

SECOND SEMESTER

ES	36	Engineering Management	3	0	3	ES31
ES	37	Methods of Research	3	0	3	EM22
ES	39	Basic Occupational Safety and Health	3	0	3	3 rd year standing
EE	36	Electrical Machines 2	3	3	4	EE31
EE	37	Electrical Apparatus and Devices	2	3	3	EE26
ECE	38	Feedback and Control Systems	2	3	3	EM22,ECE28
ECE	39	Microprocessor, Microcontroller Systems and Design	3	3	4	ECE32, ES22
ECE	35	Industrial Electronics	3	3	4	ECE28
			22	15	27	

SUMMER

OJT	1	On-the-Job Training (240 hours)	(2 units)	(1 unit)	3	4 th year standing
-----	---	---------------------------------	-----------	----------	---	-------------------------------

FOURTH YEAR

FIRST SEMESTER

EE	41	Industrial Wiring and Motor Controls	0	3	1	EE36, EE37, ECE38
EE	42	Electrical System & Illumination Engineering Design	3	6	5	EE36
EE	43	Instrumentation and Control	2	3	3	ECE38
EE	44	Electrical Standards and Practices	0	3	1	EE38
EE	Elec1	EE Elective 1	3	0	3	EE36, EE37, EE38
ES	42	Environmental Science and Engineering	3	0	3	4 th year Standing
ES	41	Technopreneurship 101	3	0	3	4 th year Standing
Proj	1	Project Study 1	1	3	2	4 th year Standing
ER	41	Engineering Review 1	3	0	3	4 th year Standing
			18	18	24	

SECOND SEMESTER

ES	48	Seminars, Colloquium and Field Trips	0	3	1	4 th year standing
EE	46	Power Systems Analysis	3	3	4	EE41, EE43, EE44
EE	47	Distribution Systems and Substation Design	2	3	3	Co-Req. EE46
EE	48	Fundamentals of Power Plant Engineering Design	0	3	1	Co-Req. EE46
EE	49	EE Laws, Codes and Professional Ethics	2	0	2	4 th year standing
EE	Elec2	EE Elective 2	3	0	3	EEElec1
Proj	2	Project Study 2	1	3	2	Proj1, EE44
ER	46	Engineering Review 2	3	0	3	ER41
GEC	121	Ethics	3	0	3	4 th year standing
IC	111	Life and Works of Andres Bonifacio	2	0	2	
			19	15	24	

Track Elective Courses

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

Note: All subjects taken without prior completion of the pre-requisite will not be credited.

SUMMARY		
Classification/Field/Course	CHED Requirement	ABC Requirement
I. TECHNICAL COURSES		
A. Mathematics	12	16
B. Natural Sciences	8	8
C. Engineering Sciences	7	17
D. Allied Courses	34	41
E. Professional Courses	51	65
F. Electives	6	6
Sub-total	118	153
II. NON-TECHNICAL COURSES		
A. Core Courses	24	24
B. Electives	9	9
C. Mandated Course	3	3
D. Institutional Courses		14
E. Physical Education	8	8
F. National Service Training Program	6	6
Sub-total	50	64
GRAND TOTAL	168	217

Evaluated by

ENGR. REY C. BASADRE
Dean

Course No.	Descriptive Title	Units											
		Math	Natural Sci.	Eng'g Sci.	Allied	Prof. Courses	Elec.	Core Courses	Electives	Mandated Courses	Institutional	Physical Educ.	NSTP
<u>SECOND YEAR</u>													
FIRST SEMESTER													
EM21	Differential Equations	3											
EM22	Engineering Data Analysis	3											
ES21	Statics of Rigid Bodies (Engineering Mechanics)			3									
EE21	Electrical Circuits 1					4							
ME21	Thermodynamics 1				3								
LIT311	Philippine Literature										3		
GEC112	Readings in Philippine History							3					
PATHFit3	Dance/ Sports/ Martial Arts/ Group Exercise/ Outdoor and Adventure Activities											2	
SECOND SEMESTER													
EM26	Advanced Engineering Mathematics					4							
ES26	Dynamics of Rigid Bodies (Engineering Mechanics)			3									
ES27	Mechanics of Deformable Bodies				4								
EE26	Electrical Circuits 2					4							
ECE26	Electromagnetics				4								
ECE28	Electronic Circuits, Devices and Analysis				4								
GEC115	Gender and Society								3				
PATHFit4	Dance/ Sports/ Martial Arts/ Group Exercise/ Outdoor and Adventure Activities											2	
<u>THIRD YEAR</u>													
FIRST SEMESTER													
ES31	Engineering Economics			3									
ES32	Mechanics of Fluids				3								
ES38	Materials Science and Engineering				3								
EM31	Numerical Methods and Analysis					4							
EE31	Electrical Machines 1					3							
ECE32	Logic Circuits and Switching Theory				4								
ECE33	Principles of Communications Systems				4								
SSP123	Indigenous People's Studies with Peace Education								3				

Course No.	Descriptive Title	Units											
		Math	Natural Sci.	Eng'g Sci.	Allied	Prof. Courses	Elec.	Core Courses	Electives	Mandated Courses	Institutional	Physical Educ.	NSTP
SECOND SEMESTER													
ES36	Engineering Management										3		
ES37	Methods of Research					3							
ES39	Basic Occupational Safety and Health				3								
EE36	Electrical Machines 2					4							
EE37	Electrical Apparatus and Devices					3							
ECE38	Feedback and Control Systems					3							
ECE39	Microprocessor, Microcontroller Systems and Design				4								
ECE35	Industrial Electronics				4								
SUMMER													
OJT1	On-the-Job Training (240 hrs)					3							
<u>FOURTH YEAR</u>													
FIRST SEMESTER													
EE41	Industrial Wiring and Motor Controls										1		
EE42	Electrical System & Illumination Engineering Design					5							
EE43	Instrumentation and Control					3							
EE44	Electrical Standards and Practices					1							
EEElec1	EE Elective 1						3						
ES42	Environmental Science and Engineering				3								
ES41	Technopreneurship 101			3									
Proj1	Project Study 1					2							
ER41	Engineering Review 1										3		
SECOND SEMESTER													
ES48	Seminars, Colloquium and Field Trips					1							
EE46	Power Systems Analysis					4							
EE47	Distribution Systems and Substation					3							
EE48	Fundamentals of Power Plant Engineering Design					1							
EE49	EE Laws, Codes and Professional Ethics					2							

