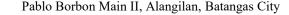


Republic of the Philippines BATANGAS STATE UNIVERSITY

Pablo Borbon Main II, Alangilan, Batangas City





COLLEGE OF ENGINEERING, ARCHITECTURE & FINE ARTS www.batstate-u.edu.ph Tel. No. (043) 425-0139 loc 118

CURRICULUM

Bachelor of Science in Electrical Engineering (BSEE)

Academic Year 2018-2019 Reference CMOs: CMO No. 88 s. 2017, CMO No. 4 s. 2018 and CMO No. 20, s. 2013

Curriculum Description

Electrical Engineering is a profession that involves the conceptualization, development, design, improvement and application of safe, healthy, ethical and economical way of utilizing materials and energy in unit Processes and operations for the benefit of society and the environment through the knowledge of mathematics, chemistry, biology, information technology and other natural, applied and social sciences, gained by study, research and practice.

Program Educational Objectives of Electrical Engineering

The electrical engineering alumni three to five years after graduation shall:

- 1. Demonstrate professional; expertise through analytical and innovative thinking for the purpose of solving industry-based engineering problems design of advanced electrical system and involvement in research oriented projects.
- 2. Engage their engineering profession in the globally competitive environment through continuous professional education, research and development, and other creative and innovative efforts in science, engineering, and technology, as well as other professional
- 3. Exhibit holistic leadership and professionalism, through peer-recognized expertise in team-based environments as agents of sustainable economic development.

Student Outcomes

The following skills, knowledge, and behaviors are expected to be attained by students as they progress through the program:

- a. Ability to apply knowledge of mathematics and science to solve engineering problems.
- b. Ability to design and conduct experiments, as well as to analyze and interpret data.
- c. Ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability, in accordance with standards.
- d. Ability to function on multidisciplinary teams.
- e. Ability to identify, formulate, and solve engineering problems.
- f. Understanding of professional and ethical responsibility.
- g. Ability to communicate effectively.
- h. Broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.
- i. Recognition of the need for, and an ability to engage in life-long learning.
- j. Knowledge of contemporary issues.
- k. Ability to use techniques, skills, and modern engineering tools necessary for engineering practice.
- 1. Knowledge and understanding of engineering and management principles as a member and leader in a team, to manage projects and in multidisciplinary environments.

CURRICULUM COMPONENTS

Classification/ Field / Course	Minimum No.	Credit Units	
Classification/ Field / Course	Lec	Lab	Credit Units
Technical Courses			
Mathematics	_		
Calculus 1	3	0	3
Calculus 2	3	0	3
Engineering Data Analysis	3	0	3
Differential Equations	3	0	3
Natural/Physical Sciences			,
Chemistry for Engineers	3	3	4
Physics for Engineers	3	3	4
Modern Biology	2	3	3
Engineering Sciences	0		1
Computer-aided Design	0	3	1
Engineering Mechanics	3	0	3
Engineering Economics	3	0	3
Technoprenuership	3	0	3
Engineering Management	2	0	2
Introduction to Engineering	0	3	1
Engineering Drawing	0	3	1
Allied Courses Fundamentals of Deformable Bodies	2	0	2
	3	0	3
Material Science and Engineering	3	0	3
Electronic Circuits: Devices and Analysis	3	3	4
Themodynamics Industrial Electronics	3	0	3
	3	3	4
Electromagnetics	4	0	4
Fluid Mechanics	3	0	3
Fundamentals of Electronic Communications	3	0	3
Logic Circuits and Switching Theory	2	3	3
Microprocessor Systems	3	0	3
Computer Programming	3	3	1 2
Basic Occupational Safety and Health Discrete Math	3	0	3
	2	0	3 2
Environmental Science and Engineering Professional Courses	Z	0	Δ
	2	3	3
Numerical Methods and Analysis Electrical Circuits 1	3	3	4
Electrical Circuits 1 Electrical Circuits 2	3	3	
	3	0	3
Engineering Mathematics for EE Electrical Machines 1	3	3	
Electrical Apparatus and Devices	2	3	3
Electrical Machines 2	3	3	4
EE Laws, Contacts and Professional Ethics	2	0	2
·			
Feedback Control System Electrical Standards and Practices	0	<u>0</u> 3	3
		3	
Power System Analysis	2	3	5
Instrumentation and Control			3
Electrical Systems and Illumination Design	3	6	5
Fundamentals of Power Plant Engineering Design	2 2	3	3
Electrical Transmission, Distribution Systems and Substation Design Research Methods	3		3
	0	3	3
EE Design Project 1		3	
EE Design Project 2	0		1
Electrical Maintenance and Operations	3	0	3
Seminars/Colloquia	0	3	1
On-the-Job Training		hrs	4
Electives 1,2	6	0	6
EE Practice with Comprehensive Examination	0	6	2
SUB-TOTAL	118	84	150

Non - Technical Courses							
GE Core Courses							
Science, Technology and Society	3	0	3				
Contemporary World	3	0	3				
Readings in Philippine History	3	0	3				
Understanding the Self	3	0	3				
Art Appreciation	3	0	3				
Purposive Communication	3	0	3				
Mathematics in the Modern World	3	0	3				
Ethics	3	0	3				
Electives Mandated Courses							
Kontekstwalisadong Komunikasyon sa Filipino	3	0	3				
Filipino sa Iba't Ibang Disiplina	3	0	3				
ASEAN Literature	3	0	3				
Life and Works of Rizal	3	0	3				
PE 1, 2, 3, 4	8	0	8				
NSTP 1, 2	6	0	6				
SUB-TOTAL	50	0	50				
GRAND TOTAL	168	84	200				
SUMMAR	AY .						
Courses Number of Units							
I. Technical Courses							
A. Mathematics	12						
B. Natural/Physical Sciences	11						
C. Basic Engineering Sciences	14						
D. Allied Courses	42						
E. Professional Courses	71						
II. Non-Technical Courses							
A. General Education Courses	24						
B. Filipino/Literature/Mandated Courses	12						
C. Physical Education	8						
D. NSTP	·	6					
GRAND TOTAL		200					

PROGRAM OF STUDY

	FIRST	VEAD				
	First Se					
			Hour/s			
Course Code	Course Title	Lec	Lab	Unit/s	Pre-requisite/s	Co-requisite/s
GEd 102	Mathematics in the Modern World	3	0	3		
GEd 105	Readings in Philippine History	3	0	3		
GEd 101	Understanding the Self	3	0	3		
SCI 401	General Chemistry	3	3	4		
GEd 106	Purposive Communication	3	0	3		
ENGG 401	Introduction to Engineering	0	3	1		
MATH 401	Differential Calculus	3	0	3		
PE 101	Physical Fitness, Gymnastics and Aerobics	2	0	2		
NSTP 111	National Service Training Program 1	3	0	3		
	Tota	1 23	6	25		
	FIRST	YEAR	•	'		•
	Second S	emester				
Course Code	Course Title	No. of	Hour/s	Unit/s	D.,	C
Course Code	Course Title	Lec	Lab	Unit/s	Pre-requisite/s	Co-requisite/s
MATH 402	Integral Calculus	3	0	3	MATH 401	
SCI 403	Physics 1	3	3	4	MATH 401	MATH 402
GEd 104	The Contemporary World	3	0	3		
GEd 109	Science, Technology and Society	3	0	3		
GEd 108	Art Appreciation	3	0	3		
CpE 401	Computer Programming 1	0	3	1		
ENGG 402	Engineering Drawing	0	3	1		
PE 102	Rhythmic Activities	2	0	2	PE 101	
NSTP 121	National Service Training Program 2	3	0	3	NSTP 111	
	Tota	ıl 20	9	23		
	FIRST	YEAR				
	Midt	erm				
Course Code	Course Title	No. of	Hour/s	Unit/s	Duo vo aviaito/a	Co mognicito/s
Course Code	Course Title	Lec	Lab	Unit/s	Pre-requisite/s	Co-requisite/s
SCI 402	Modern Biology	2	3	3		
GEd 103	Life and Works of Rizal	3	0	3		
GEd 107	Ethics	3	0	3		
	_	1 0	3	9		
	Tota		J			
	SECONI	YEAR				
		YEAR mester				
Course Code	SECONI First Se	YEAR mester	Hour/s	Unit/s	Pro roquisito/s	Co requisite/s
Course Code	SECONI	YEAR mester		Unit/s	Pre-requisite/s	Co-requisite/s
Course Code MATH 403	SECONI First Se	No. of Lec	Hour/s	Unit/s	Pre-requisite/s MATH 401	Co-requisite/s
	SECONI First Se Course Title	No. of Lec	Hour/s Lab		•	Co-requisite/s
MATH 403 MATH 404 ENGG 409	SECONI First Se Course Title Engineering Data Analysis Differential Equations Engineering Mechanics	No. of Lec	Hour/s Lab	3	MATH 401 MATH 402 SCI 403	Co-requisite/s
MATH 403 MATH 404 ENGG 409 EE 401	SECONI First Se Course Title Engineering Data Analysis Differential Equations Engineering Mechanics Electrical Circuits 1	No. of Lec 3 3 3 3 3	Hour/s Lab 0 0	3	MATH 401 MATH 402	Co-requisite/s
MATH 403 MATH 404 ENGG 409 EE 401 Fili 101	SECONI First Se Course Title Engineering Data Analysis Differential Equations Engineering Mechanics Electrical Circuits 1 Kontekstwalisadong Komunikasyon sa Filipino	No. of Lec 3 3 3 3 3 3 3	Hour/s Lab 0 0 0	3 3 4 3	MATH 401 MATH 402 SCI 403 MATH 402, SCI 403	
MATH 403 MATH 404 ENGG 409 EE 401 Fili 101 ECE 401	SECONI First Se Course Title Engineering Data Analysis Differential Equations Engineering Mechanics Electrical Circuits 1 Kontekstwalisadong Komunikasyon sa Filipino Electromagnetics	No. of Lec 3 3 3 3 3	Hour/s Lab 0 0 3	3 3 3 4	MATH 401 MATH 402 SCI 403 MATH 402, SCI 403	Co-requisite/s
MATH 403 MATH 404 ENGG 409 EE 401 Fili 101 ECE 401 ME 431	SECONI First Se Course Title Engineering Data Analysis Differential Equations Engineering Mechanics Electrical Circuits 1 Kontekstwalisadong Komunikasyon sa Filipino Electromagnetics Thermodynamics	No. of Lec 3 3 3 3 3 3 3	Hour/s Lab 0 0 0 0 0 0 0 0 0 0 0 0 0	3 3 4 3	MATH 401 MATH 402 SCI 403 MATH 402, SCI 403 SCI 403 SCI 403, MATH 402	
MATH 403 MATH 404 ENGG 409 EE 401 Fili 101 ECE 401 ME 431 ENGG 403	SECONI First Se Course Title Engineering Data Analysis Differential Equations Engineering Mechanics Electrical Circuits 1 Kontekstwalisadong Komunikasyon sa Filipino Electromagnetics Thermodynamics Computer-Aided Design	No. of Lec 3 3 3 3 4 4 3 0	Hour/s Lab 0 0 0 0 0 0 0	3 3 4 3 4 3 1	MATH 401 MATH 402 SCI 403 MATH 402, SCI 403 SCI 403 SCI 403, MATH 402 ENGG 402	
MATH 403 MATH 404 ENGG 409 EE 401 Fili 101 ECE 401 ME 431	SECONI First Se Course Title Engineering Data Analysis Differential Equations Engineering Mechanics Electrical Circuits 1 Kontekstwalisadong Komunikasyon sa Filipino Electromagnetics Thermodynamics Computer-Aided Design Individual and Dual Sports	No. of Lec 3 3 3 3 4 3 0 2	Hour/s Lab 0 0 0 0 0 0 0 0 0 0 0 0 0	3 3 4 3 4 3	MATH 401 MATH 402 SCI 403 MATH 402, SCI 403 SCI 403 SCI 403, MATH 402	
MATH 403 MATH 404 ENGG 409 EE 401 Fili 101 ECE 401 ME 431 ENGG 403	SECONI First Se Course Title Engineering Data Analysis Differential Equations Engineering Mechanics Electrical Circuits 1 Kontekstwalisadong Komunikasyon sa Filipino Electromagnetics Thermodynamics Computer-Aided Design Individual and Dual Sports Tota	No. of Lec 3 3 3 3 4 3 0 2 2	Hour/s Lab 0 0 0 0 0 3 0 0 0 3	3 3 4 3 4 3 1	MATH 401 MATH 402 SCI 403 MATH 402, SCI 403 SCI 403 SCI 403, MATH 402 ENGG 402	
MATH 403 MATH 404 ENGG 409 EE 401 Fili 101 ECE 401 ME 431 ENGG 403	SECONI First Se Course Title Engineering Data Analysis Differential Equations Engineering Mechanics Electrical Circuits 1 Kontekstwalisadong Komunikasyon sa Filipino Electromagnetics Thermodynamics Computer-Aided Design Individual and Dual Sports Tota SECONI	No. of Lec 3 3 3 3 4 3 0 2 2 24 24 24 24 24	Hour/s Lab 0 0 0 3 0 0 0 3 0 0 0 0	3 3 4 3 4 3 1 2	MATH 401 MATH 402 SCI 403 MATH 402, SCI 403 SCI 403 SCI 403, MATH 402 ENGG 402	
MATH 403 MATH 404 ENGG 409 EE 401 Fili 101 ECE 401 ME 431 ENGG 403	SECONI First Se Course Title Engineering Data Analysis Differential Equations Engineering Mechanics Electrical Circuits 1 Kontekstwalisadong Komunikasyon sa Filipino Electromagnetics Thermodynamics Computer-Aided Design Individual and Dual Sports Tota	No. of Lec 3 3 3 3 4 4 3 0 2 1 24 DYEAR Emester	Hour/s Lab 0 0 0 3 0 0 0 5 6	3 3 4 3 4 3 1 2	MATH 401 MATH 402 SCI 403 MATH 402, SCI 403 SCI 403 SCI 403, MATH 402 ENGG 402	
MATH 403 MATH 404 ENGG 409 EE 401 Fili 101 ECE 401 ME 431 ENGG 403 PE 103	SECONI First Se Course Title Engineering Data Analysis Differential Equations Engineering Mechanics Electrical Circuits 1 Kontekstwalisadong Komunikasyon sa Filipino Electromagnetics Thermodynamics Computer-Aided Design Individual and Dual Sports Tota SECONI Second S	No. of Lec 3 3 3 3 4 3 0 2 1 24 O YEAR Emester No. of No. of	Hour/s Lab 0 0 0 3 0 0 0 4 Hour/s	3 3 4 3 4 3 1 2 26	MATH 401 MATH 402 SCI 403 MATH 402, SCI 403 SCI 403 SCI 403, MATH 402 ENGG 402 PE 101	MATH 404
MATH 403 MATH 404 ENGG 409 EE 401 Fili 101 ECE 401 ME 431 ENGG 403 PE 103	SECONI First Se Course Title Engineering Data Analysis Differential Equations Engineering Mechanics Electrical Circuits 1 Kontekstwalisadong Komunikasyon sa Filipino Electromagnetics Thermodynamics Computer-Aided Design Individual and Dual Sports Tota SECONI Second S Course Title	No. of Lec 3 3 3 3 4 3 0 2 2 1 24 YEAR No. of Lec Lec Lec Lec Lec Lec Lec	Hour/s Lab 0 0 0 3 0 0 0 4 Hour/s Hour/s	3 3 4 3 4 3 1 2 26	MATH 401 MATH 402 SCI 403 MATH 402, SCI 403 SCI 403 SCI 403, MATH 402 ENGG 402 PE 101 Pre-requisite/s	MATH 404
MATH 403 MATH 404 ENGG 409 EE 401 Fili 101 ECE 401 ME 431 ENGG 403 PE 103 Course Code	SECONI First Se Course Title Engineering Data Analysis Differential Equations Engineering Mechanics Electrical Circuits 1 Kontekstwalisadong Komunikasyon sa Filipino Electromagnetics Thermodynamics Computer-Aided Design Individual and Dual Sports Tota SECONI Second S Course Title Advanced Mathematics for EE	No. of Lec 3 3 3 3 4 3 0 2 2 1 24 YEAR No. of Lec 3 3	Hour/s Lab 0 0 0 3 0 0 0 6 Hour/s	3 3 4 3 4 3 1 2 26	MATH 401 MATH 402 SCI 403 MATH 402, SCI 403 SCI 403 SCI 403, MATH 402 ENGG 402 PE 101 Pre-requisite/s MATH 404	MATH 404
MATH 403 MATH 404 ENGG 409 EE 401 Fili 101 ECE 401 ME 431 ENGG 403 PE 103 Course Code EE 402 ENGG 410	SECONI First Se Course Title Engineering Data Analysis Differential Equations Engineering Mechanics Electrical Circuits 1 Kontekstwalisadong Komunikasyon sa Filipino Electromagnetics Thermodynamics Computer-Aided Design Individual and Dual Sports Tota SECONI Second S Course Title Advanced Mathematics for EE Fundamentals of Deformable Bodies	No. of Lec 3 3 3 4 3 0 2 2 4 24 24 24 24 2	Hour/s Lab 0 0 0 3 0 0 0 5 Hour/s Lab 0 0 0 0 0 0 0 0 0 0 0 0 0	3 3 4 3 4 3 1 2 26	MATH 401 MATH 402 SCI 403 MATH 402, SCI 403 SCI 403 SCI 403, MATH 402 ENGG 402 PE 101 Pre-requisite/s MATH 404 ENGG 409	MATH 404 Co-requisite/s
MATH 403 MATH 404 ENGG 409 EE 401 Fili 101 ECE 401 ME 431 ENGG 403 PE 103 Course Code EE 402 ENGG 410 EE 403	Course Title Engineering Data Analysis Differential Equations Engineering Mechanics Electrical Circuits 1 Kontekstwalisadong Komunikasyon sa Filipino Electromagnetics Thermodynamics Computer-Aided Design Individual and Dual Sports Tota SECONI Second S Course Title Advanced Mathematics for EE Fundamentals of Deformable Bodies Electrical Circuits 2	No. of Lec 3 3 3 3 4 3 3 4 2 2 4 2 2 4	Hour/s Lab 0 0 0 3 0 0 0 3 0 6 Hour/s Lab 0 3 0 6	3 3 4 3 4 3 1 2 26	MATH 401 MATH 402 SCI 403 MATH 402, SCI 403 SCI 403 SCI 403 SCI 403, MATH 402 ENGG 402 PE 101 Pre-requisite/s MATH 404 ENGG 409 EE 401	MATH 404
MATH 403 MATH 404 ENGG 409 EE 401 Fili 101 ECE 401 ME 431 ENGG 403 PE 103 Course Code EE 402 ENGG 410 EE 403 ECE 421	Course Title Engineering Data Analysis Differential Equations Engineering Mechanics Electrical Circuits 1 Kontekstwalisadong Komunikasyon sa Filipino Electromagnetics Thermodynamics Computer-Aided Design Individual and Dual Sports Tota SECONI Second S Course Title Advanced Mathematics for EE Fundamentals of Deformable Bodies Electrical Circuits 2 Electronic Circuits: Devices and Analysis	No. of Lec 3 3 3 4 3 0 2 1 24 24 24 24 No. of Lec 3 3 3 3 3 3 3 3 3	Hour/s Lab 0 0 0 3 0 0 0 5 Hour/s Lab 0 0 3 0 6	3 3 4 3 4 3 1 2 26	MATH 401 MATH 402 SCI 403 MATH 402, SCI 403 SCI 403 SCI 403, MATH 402 ENGG 402 PE 101 Pre-requisite/s MATH 404 ENGG 409	MATH 404 Co-requisite/s
MATH 403 MATH 404 ENGG 409 EE 401 Fili 101 ECE 401 ME 431 ENGG 403 PE 103 Course Code EE 402 ENGG 410 EE 403 ECE 421 Fili 102	Course Title Engineering Data Analysis Differential Equations Engineering Mechanics Electrical Circuits 1 Kontekstwalisadong Komunikasyon sa Filipino Electromagnetics Thermodynamics Computer-Aided Design Individual and Dual Sports Tota SECONI Second S Course Title Advanced Mathematics for EE Fundamentals of Deformable Bodies Electrical Circuits 2 Electronic Circuits: Devices and Analysis Filipino sa Iba't Ibang Disipllina	No. of Lec 3 3 3 4 3 0 2 2 1 24 24 24 24 24	Hour/s Lab 0 0 0 3 0 0 0 5 Hour/s Lab 0 0 3 0 6	3 3 4 3 4 3 1 2 26 Unit/s	MATH 401 MATH 402 SCI 403 MATH 402, SCI 403 SCI 403 SCI 403, MATH 402 ENGG 402 PE 101 Pre-requisite/s MATH 404 ENGG 409 EE 401 EE 401	MATH 404 Co-requisite/s
MATH 403 MATH 404 ENGG 409 EE 401 Fili 101 ECE 401 ME 431 ENGG 403 PE 103 Course Code EE 402 ENGG 410 EE 403 ECE 421 Fili 102 EE 404	SECONI First Se Course Title Engineering Data Analysis Differential Equations Engineering Mechanics Electrical Circuits 1 Kontekstwalisadong Komunikasyon sa Filipino Electromagnetics Thermodynamics Computer-Aided Design Individual and Dual Sports Tota SECONI Second S Course Title Advanced Mathematics for EE Fundamentals of Deformable Bodies Electrical Circuits 2 Electronic Circuits: Devices and Analysis Filipino sa Iba't Ibang Disipllina Electrical Machines 1	No. of Lec 3 3 3 3 4 4 2 2 2 4	Hour/s Lab 0 0 0 3 0 0 0 5 Hour/s Lab 0 0 3 0 6	3 3 4 3 4 3 1 2 26	MATH 401 MATH 402 SCI 403 MATH 402, SCI 403 SCI 403 SCI 403, MATH 402 ENGG 402 PE 101 Pre-requisite/s MATH 404 ENGG 409 EE 401 EE 401 EE 401, ECE 401	MATH 404 Co-requisite/s
MATH 403 MATH 404 ENGG 409 EE 401 Fili 101 ECE 401 ME 431 ENGG 403 PE 103 Course Code EE 402 ENGG 410 EE 403 ECE 421 Fili 102	Course Title Engineering Data Analysis Differential Equations Engineering Mechanics Electrical Circuits 1 Kontekstwalisadong Komunikasyon sa Filipino Electromagnetics Thermodynamics Computer-Aided Design Individual and Dual Sports Tota SECONI Second S Course Title Advanced Mathematics for EE Fundamentals of Deformable Bodies Electrical Circuits 2 Electronic Circuits: Devices and Analysis Filipino sa Iba't Ibang Disipllina	No. of Lec 3 3 3 4 3 0 2 2 1 24 24 24 24 24	Hour/s Lab 0 0 0 3 0 0 0 5 Hour/s Lab 0 0 3 0 6	3 3 4 3 4 3 1 2 26 Unit/s	MATH 401 MATH 402 SCI 403 MATH 402, SCI 403 SCI 403 SCI 403, MATH 402 ENGG 402 PE 101 Pre-requisite/s MATH 404 ENGG 409 EE 401 EE 401	MATH 404 Co-requisite/s

	THIRD Y					
	First Sem		II a!-			I
Course Code	Course Title		Hour/s	Unit/s	Pre-requisite/s	Co-requisite/s
ENGG 415	N 1 M d. 1 1 A . 1	Lec	Lab	2	MATH 404 C E 401	
	Numerical Methods and Analysis	2 2	3	3	MATH 404, CpE 401 ECE 421	
CpE 409 EE 406	Logic Circuits and Switching Theory Electrical Machines 2	3	3	4	EE 403, EE 404	EE 405
ENGG 412	Materials Science and Engineering	3	0	3	SCI 401, ENGG 409	EE 403
ENGG 412 ENGG 404	Engineering Economics	3	0	3	MATH 403	
ECE 423	Fundamentals of Electronic Communications	3	0	3	ECE 421	
ECE 423 EE 407	EE Laws, Contacts and Professional Ethics	2	0	2		
EE 407	,	2	3	3	3rd year standing EE 403, EE 404	
Litr 102	Electrical Apparatus and Devices ASEAN Literature	3	0	3	EE 403, EE 404	
Liti 102	ASEAN LITERATURE Total		12	27		
	THIRD Y		12	21		
	Second Se					
			Hour/s			
Course Code	Course Title	Lec	Lab	Unit/s	Pre-requisite/s	Co-requisite/s
ENGG 416	Research Methods	3	0	3	MATH 403	
EE 410	Power System Analysis	4	3	5	EE 406	EE 409
ENGG 413	Environmental Science and Engineering	2	0	2	SCI 401	DD 707
ECE 424	Industrial Electronics	3	3	4	ECE 421	
ECE 424 EE 408	FeedbackControl System	3	0	3	EE 402, ECE 421	
EE 409	Electrical Standards and Practices	0	3	1	EE 402, ECE 421	
CpE 416	Microprocessor Systems	3	0	3	CpE 409	
EEE 401	EE Elective 1	3	0	3	3rd year standing	
LLL 401	Total		9	24	3rd year standing	
	THIRD Y		,	24		
	Midter					
			Hour/s			
Course Code	Course Title	Lec	Lab	Unit/s	Pre-requisite/s	Co-requisite/s
ENGG 406	Engineering Management	2	0	2		
ME 406	Fluid Mechanics	3	0	3	ENGG 410	
ENGG 411	Basic Occupational Safety and Health	3	0	3		
DIVOC III	Total		0	8		
	FOURTH			Ü		
	First Sem					
Commo Codo	Course Title	No. of	Hour/s	TI:4/a	Duo	Ca magninitale
Course Code	Course Title	Lec	Lab	Unit/s	Pre-requisite/s	Co-requisite/s
ENGG 417	On-the-Job Training	3	20	4	4th year standing	
ENGG 405	Technopreneurship	3	0	3	4th year standing	
EEE 402	Elective 2	3	0	3	EEE 401	
EE 411	EE Design Project 1	0	3	1	4th year standing	
	Total		3	11		
	FOURTH					
	Second Ser		** :	1		,
Course Code	Course Title		Hour/s	Unit/s	Pre-requisite/s	Co-requisite/s
		Lec	Lab		-	
EE 412	Electrical Systems and Illumination Design	3	6	5	EE 410	
EE 413	Fundamentals of Power Plant Engineering Design	2	3	3	EE 410	
EE 414	Transmission, Distribution Systems and Substation	2	3	3	EE 410	
EE 415	Design EE Design Project 2	0	3	1	Graduating	
EE 415	Electrical Maintenance and Operations	3	0	3	4th year standing	
EE 410	Seminars/Colloquia	0	3	1	Regular Standing	
LE 41/	Electrical Engineering Practice with Comprehensive	U	3	1	regular Standing	
EE 418	Examination Practice with Comprehensive	0	6	2	Graduating	
ICE 420	Instrumentation and Control	2	3	3	EE 408	
10L 720	Total		27	21	LL TV0	
	GRAND TOTAL UNITS	168	84	200		l
	OIVIUD TOTAL UIIID	100	U-1	200		

EE Elective Tracks

Renewable Energy for Sustainable Development Solar Energy

Biogas/Biomass Energy

Machine Automation and Process Control

Pneumatic and Electropneumatics

Progammable Logic Controlled in Manufacturing & Power Sytems