



CURRICULUM
Bachelor of Industrial Technology
ELECTRONICS TECHNOLOGY
 Academic Year 2018-2019

Reference: CMO No. 20 S. 2013 and Based on PACUIT Proposal

Curriculum Description

The Electronics Technology program prepares graduates for employment in a wide variety of industries producing and/or using electrical and electronic equipment. The program provides a thorough understanding of digital electronics, circuit analysis, electronic devices, machine controls, programmable logic controllers and industrial electronics. This course also includes theoretical analysis, software simulation and hands-on applications.

Program Objectives

1. Successfully practice as engineering technologists for the welfare of the society.
2. Demonstrate a high degree of professionalism at all times.

Program Outcomes

Graduates will have:

- a. An appropriate mastery of the knowledge, techniques, skills and modern tools of technology
- b. An ability to apply current knowledge and adapt to emerging applications of mathematics, science and technology
- c. An ability to conduct, analyze and interpret experiments and apply experimental results to improve processes
- d. An ability to apply creativity in the design of systems, components or processes appropriate to program objectives
- e. An ability to function effectively on teams
- f. An ability to identify, analyze and solve technical problems
- g. An ability to communicate effectively in writing and in oral presentation
- h. A recognition of the need for, and an ability to engage in lifelong learning
- i. An ability to understand professional, ethical and social responsibilities
- j. The knowledge of and respect for diverse backgrounds, contemporary societal and global issues concerning the profession
- k. A commitment to quality, timeliness and continuous improvement

Curriculum Components

Code	Courses	Units	Total
	A. General Education Courses (CMO No. 20, series of 2013)		36 units
	B. Professional and Management Courses		32 units
PM 101	Occupational Health and Safety Management	2	
PM 102	Industrial Operation & Management Practices	3	
PM 103	Production and Operations Management	3	
PM 104	Technology Research I	3	
PM 105	Materials Technology Management	3	
PM 106	Professional Ethics	3	
PM 107	Technology Research II	3	
PM 108	Manufacturing Technology	3	
PM 109	Total Quality Management	3	
PM 110	Environmental Technology	3	
ENGG 405	Technopreneurship	3	
	C. Applied Sciences and Tools Courses		27 units
AST 111	Math for Technology	3	
AST 102	Applied Chemistry	3	
AST 105	Applied Physics	3	
AST 133	Production Drawing	2	

AST 129	Electronics Measurements	2	
AST 112	Electrical Principles	3	
AST 135	Computer Aided Design	2	
AST 134	Computer Programming	3	
AST 120	Programmable Logic Control	3	
AST 110	Data Analytics	3	
	D. Major Specialization Courses		36 units
ELX 111	Introduction to Semiconductor Devices	3	
ELX 121	Electronic Amplifiers and Integrated Circuits	3	
ELX 122	Digital Logic Circuits and Switching	3	
ELX 211	Electronics Workshop I	3	
ELX 212	Industrial Electronics	3	
ELX 221	Analog Communication Systems	3	
ELX 222	Microcomputer Systems	3	
ELX 223	Automatic Controls	3	
ELX 224	Electronics Workshop II	3	
ELX 311	Wireless and Satellite Communication Systems	3	
CPT 322	Plant Safety Network	3	
ELX 321	Totally Integrated Automatic	3	
	E. Mandated Courses		14 units
PE 101	Physical Fitness, Gymnastics and Aerobics	2	
PE 102	Rhythmic Activities	2	
PE 103	Individual and Dual Sports	2	
PE 104	Team Sports	2	
NSTP 111	National Service Training Program 1	3	
NSTP 121	National Service Training Program 2	3	
	F. Supervised Industrial Training/OJT		20 units

SUMMARY	
Courses	Number of Units
General Education	36
Applied Sciences and Tool Courses	27
Professional and Management Courses	32
Specialization/Major Courses	36
Supervised Industrial Training/OJT	20
Mandated Courses (PE & NSTP)	14
TOTAL	165

PROGRAM OF STUDY

FIRST YEAR						
First Semester						
COURSE CODE	COURSE TITLE	CREDIT		UNITS	NO. OF HRS.	PRE-REQUISITE
		LEC	LB/SW			
AST 111	Math for Technology	3	0	3	3	
AST 102	Applied Chemistry	2	3	3	5	
AST 105	Applied Physics	2	3	3	5	
AST 133	Production Drawing	1	3	2	4	
AST 129	Electronics Measurements	1	3	2	4	
AST 112	Electrical Principles	2	3	3	5	
PM 101	Occupational Health and Safety Management	2	0	2	2	
ELX 111	Introduction to Semiconductor Devices	2	3	3	5	
NSTP 111	National Service Training Program 1	3	0	3	3	
PE 101	Physical Fitness, Gymnastics and Aerobics	2	0	2	2	
TOTAL		18	18	26	33	

FIRST YEAR						
Second Semester						
COURSE CODE	COURSE TITLE	CREDIT		UNITS	NO. OF HRS.	PRE-REQUISITE
		LEC	LB/SW			
GEEd 101	Understanding the Self	3	0	3	3	
GEEd 102	Mathematics in the Modern World	3	0	3	3	
GEEd 106	Purposive Communication	3	0	3	3	
GEEd 109	Science, Technology and Society	3	0	3	3	
AST 135	Computer Aided Design	1	3	2	4	AST 133
ELX 121	Electronic Amplifiers and Integrated Circuits	2	3	3	5	ELX 111
ELX 122	Digital Logic Circuits and Switching	2	3	3	5	ELX 111
NSTP 121	National Service Training Program 2	3	0	3	3	NSTP 111
PE 102	Rhythmic Activities	2	0	2	2	PE 101
TOTAL		20	9	25	26	

SECOND YEAR						
First Semester						
COURSE CODE	COURSE TITLE	CREDIT		UNITS	NO. OF HRS.	PRE-REQUISITE
		LEC	LB/SW			
GEEd 103	Life and Works of Rizal	3	0	3	3	
GEEd 104	The Contemporary World	3	0	3	3	
Fili 101	Kontekstwalisadong Komunikasyon sa Filipino	3	0	3	3	
PM 102	Industrial Operation & Management Practices	3	0	3	3	
AST 134	Computer Programming	2	3	3	5	
AST 120	Programmable Logic Control	2	3	3	5	ELX 122
ELX 211	Electronics Workshop I	2	3	3	5	ELX 121, ELX 122
ELX 212	Industrial Electronics	2	3	3	5	ELX 121
PE 103	Individual and Dual Sports	2	0	2	2	PE 101
TOTAL		22	12	26	34	

SECOND YEAR						
Second Semester						
COURSE CODE	COURSE TITLE	CREDIT		UNITS	NO. OF HRS.	PRE-REQUISITE
		LEC	LB/SW			
Fili 102	Filipino sa iba't ibang Disiplina	3	0	3	3	
GEEd 107	Ethics	3	0	3	3	
PM 103	Production and Operations Management	3	0	3	3	
AST 110	Data Analytics	3	0	3	3	GEEd 102, AST 111
ELX 221	Analog Communication Systems	2	3	3	5	ELX 212
ELX 222	Microcomputer Systems	2	3	3	5	ELX 212
ELX 223	Automatic Controls	2	3	3	5	ELX 212
ELX 224	Electronics Workshop II	2	3	3	5	ELX 211
PE 104	Team Sports	2	0	2	2	PE 101
TOTAL		22	12	26	34	

THIRD YEAR						
First Semester						
COURSE CODE	COURSE TITLE	CREDIT		UNITS	NO. OF HRS.	PRE-REQUISITE
		LEC	LB/SW			
Litr 102	ASEAN Literature	3	0	3	3	
GEEd 105	Readings in Philippine History	3	0	3	3	
PM 104	Technology Research I	3	0	3	3	ELX 221, ELX 222, ELX 223, ELX 224
PM 105	Materials Technology Management	3	0	3	3	ELX 221, ELX 222, ELX 223, ELX 224
PM 106	Professional Ethics	3	0	3	3	
ELX 311	Wireless and Satellite Communication Systems	2	3	3	5	ELX 221
CPT 322	Plant Safety Network	2	3	3	5	ELX 221
TOTAL		19	6	21	25	

THIRD YEAR						
Second Semester						
COURSE CODE	COURSE TITLE	CREDIT		UNITS	NO. OF HRS.	PRE-REQUISITE
		LEC	LB/SW			
GEEd 108	Art Appreciation	3	0	3	3	
PM 107	Technology Research II	3	0	3	3	*Regular Standing
PM 108	Manufacturing Technology	3	0	3	3	*Regular Standing
PM 109	Total Quality Management	3	0	3	3	*Regular Standing
PM 110	Environmental Technology	3	0	3	3	*Regular Standing
ENGG 405	Technopreneurship	3	0	3	3	*Regular Standing
ELX 321	Totally Integrated Automatic	2	3	3	5	ELX 311, CPT 322
TOTAL		20	3	21	23	

FOURTH YEAR						
First Semester						
COURSE CODE	COURSE TITLE	CREDIT		UNITS	NO. OF HRS.	PRE-REQUISITE
		LEC	LB/SW			
OJT 105	Supervised Industrial Training 1 (540hrs)	0	10	10	540	ELX 321
TOTAL				10	540	

FOURTH YEAR						
Second Semester						
COURSE CODE	COURSE TITLE	CREDIT		UNITS	NO. OF HRS.	PRE-REQUISITE
		LEC	LB/SW			
OJT 106	Supervised Industrial Training 2 (540hrs)	0	10	10	540	OJT 105
TOTAL				10	540	

* Regular Standing: No deficiencies on the previous semester.

TOTAL UNITS: 165