TECHNOLOGICAL INSTITUTE OF THE PHILIPPINES
Manila

2018 CURRICULUM FOR BACHELOR OF SCIENCE IN ELECTRONICS ENGINEERING (BSECE)

IMPORTANT : REGISTRATION IN ANY COURSE WITHOUT ALL THE PREREQUISITES, CORRECT SEQUENCE AND AUTHORIZED LOAD SHALL NOT BE GIVEN ANY CREDIT REGARDLESS OF THE GRADE OBTAINED. EVALUATION IS TENTATIVE AND MAY BE REVISED FOR SOME VALID CAUSES OR REASONS OR IF OMISSIONS AND/OR LACK OF UNITS CREDITED BE DISCOVERED LATER.

Student's Name and Signature

COURSE CODE			DESCRIPTIVE TITLE	Lecture Hours	Laboratory Hours	Credit Units	PREREQUISITE(S)
FIRST YEAR, FIRST SEMESTER (20 UNITS)							
	MATH	018	Calculus 1	3	0	3	
	CHM	001	Chemistry for Engineers	3	3	4	
	CPE	105B	Computer Fundamentals and Programming	0	6	2	
	GEC	001	Understanding the Self	3	0	3	
	GEC	004	Mathematics in the Modern World	3	0	3	
	GEC	007	Science, Technology and Society	3	0	3	
	PE	101	Physical Education 1	2	0	2	
	NSTP	001	National Service Training Program 1	(3)	0	(3)	
FIRST YEAR, SECOND SEMESTER (24 UNITS)							
	MATH	019	Calculus 2	3	0	3	MATH 018
	COE	027	Engineering Data Analysis	3	3	4	MATH 018
	PHYS	111A	Calculus-Based Physics 1	3	3	4	MATH 018
	PHYS	112	Calculus-Based Physics 2	3	3	4	PHYS 111A (C)
	CHM	007A	Materials Science and Engineering	3	0	3	CHM 001
	CADD	001	Computer-Aided Drafting and Design	0	3	1	
	GEC	008	Ethics	3	0	3	
	PE	102	Physical Education 2	2	0	2	PE 101
	NSTP	002	National Service Training Program 2	(3)	0	(3)	NSTP 001
SECOND YEAR, FIRST SEMESTER (23 UNITS)							
	MATH	021	Differential Equations	3	0	3	MATH 019
	MATH	022A	Linear Algebra with MATLAB	2	3	3	MATH 018
	ME	304	Engineering Economics	3	0	3	COE 027
	EE	200E	Electrical Circuits 1	3	3	4	PHYS 112
	ECE	100	Fundamentals of LabVIEW Programming	0	3	1	CPE 105B
	ECE	200	ECE Laws, Contracts, Ethics, Standards and Safety	3	0	3	
	ECE	201	Electronics 1: Electronic Devices and Circuits	3	3	4	EE 200E (C)
	PE	201	Physical Education 3	2	0	2	PE 102
SECOND YEAR, SECOND SEMESTER (26 UNITS)							
	ECE	024	Advanced Engineering Mathematics for ECE	3	3	4	MATH 021
	EE	202	Electrical Circuits 2	3	3	4	EE 200E, MATH 021
	ECE	202	Electronics 2: Electronic Circuit Analysis and Design	3	3	4	ECE 201
	ECE	203	Digital Electronics 1: Logic Circuits and Switching Theory	3	3	4	ECE 201
	ECE	204	Electromagnetics for ECE	4	0	4	MATH 021
	ECE	205	Communications 1: Principles of Communication Systems	3	3	4	ECE 202 (C)
	PE	202	Physical Education 4	2	0	2	PE 201
THIRD YEAR, FIRST SEMESTER (26 UNITS)							
	MATH	025A	Discrete Mathematics	3	0	3	MATH 022A
	GEC	005	Purposive Communication	3	0	3	
	GEE	001B	GE Elective 1 - Gender and Society	3	0	3	
	IE	101	Engineering Management	2	0	2	
	TECH	101	Introduction to Engineering Entrepreneurship	3	0	3	2nd Year Standing
	ECE	305	Electronics 3: Electronic Systems and Design	3	3	4	ECE 202
	ECE	306	Communications 2: Modulation and Coding Techniques	3	3	4	ECE 205, COE 027
	ECE	307	Signals, Spectra, Signal Processing	3	3	4	ECE 024, COE 027
THIRD YEAR, SECOND SEMESTER (25 UNITS)							
	ECE ELEC	1	ECE Elective 1	3	3	4	See track for pre-requisite(s)
	ECE	308	Digital Electronics 2: Microprocessor, Microcontroller Systems and Design	3	3	4	ECE 203
	ECE	309	Communication 3: Transmission Media and Antenna System and Design	3	3	4	ECE 204, ECE 306
	ECE	310	Communication 4: Data Communications	3	3	4	ECE 306
	ECE	311	Feedback and Control Systems	3	3	4	ECE 202, EE 202,ECE 024
	ECE	312	Methods of Research	3	0	3	GEC 005, COE 027
	ECE	313	Integration Course 1 for ECE	2	0	2	ECE 024, MATH 025A
THIRD YEAR, SUMMER (3 UNITS)							
	ECE	314	On-the-Job Training for ECE	3	240	3	3rd Year Standing

NO STUDENT SHALL BE ALLOWED TO TAKE FOURTH YEAR PROFESSIONAL COURSES UNLESS HE HAS COMPLETED THE BASIC AND THE THIRD YEAR COURSES INCLUDING PE AND NSTP.

COURSE CODE		DESCRIPTIVE TITLE	Lecture Hours	Laboratory Hours	Credit Units	PREREQUISITE(S)
FOURTH YEAR, FIRST SEMESTER (20 UNITS)						
ECE ELEC	2	ECE Elective 2	3	3	4	See track for pre-requisite(s)
CHM	008B	Environmental Science and Engineering	3	0	3	CHM 001
GEC	006	Art Appreciation	3	0	3	
GEE	002B	GE Elective 2 - Living in the IT Era	3	0	3	GEE 001B
ECE	405	ECE Design Project 1	2	3	3	4th Year Standing
ECE	406	Integration Course 2 for ECE	2	0	2	ECE 313
ECE	414	Fundamentals of Intellectual Property	1	3	2	ECE 312
FOURTH YEAR, SECOND SEMESTER (18 UNITS)						
GEC	002	Readings in Philippine History	3	0	3	
GEC	003	The Contemporary World	3	0	3	
GEE	003B	GE Elective 3 - People and the Earth's Ecosystem	3	0	3	GEE 002B
GEM	001	Life and Works of Rizal	3	0	3	
ECE	407	ECE Design Project 2	1	6	3	ECE 405, Graduating
ECE	408	Seminars/ Colloquia for ECE	0	3	1	4th Year Standing
ECE	409	Integration Course 3 for ECE	2	0	2	ECE 406
ELECTIVE COURSES						
NOTE: A STUDENT MAY CHOOSE ANY OF THE TRACK ELECTIVES BELOW AND ONCE A TRACK ELECTIVE IS CHOSEN, ALL COURSES IN THE TRACK MUST BE TAKEN.						
Elective Track 1: Biomedical Electronics						
ECE	415	Fundamentals of Biomedical Engineering	3	3	4	PHYS 112
ECE	416	Medical Imaging	3	3	4	PHYS 112, ECE 307
Elective Track 2: Telecommunications						
ECE	412	Advanced Wireless Communication Systems	3	3	4	ECE 309 (C)
ECE	413	Advanced Networking	3	3	4	ECE 310
Elective Track 3: Technopreneurship						
TECH	102	Advanced Course in Entrepreneurship	4	0	4	TECH 101
TECH	103	Product Management	3	3	4	TECH 102
Elective Track 4: Data Science						
DSC	101	Computational Thinking with Python	3	3	4	MATH 022A, COE 027
DSC	102	Prediction and Machine Learning	3	3	4	DSC 101
Elective Track 5: Railway Engineering						
RWE	001	Introduction to Railway Systems and Engineering	3	0	3	
RWE	002A	Railway Management and Governance and Operations	3	0	3	RWE 001

TOTAL NO. OF UNITS 185

CREDENTIALS SUBMITTED:

( ) F138 ( ) PSA Birth Certificate
( ) GMC ( ) Transfer Credential
( ) F137A ( ) TOR

DEFICIENCY/IES

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Evaluated by: _____
Date: _____

Received by: _____
Date: _____