

Xavier University
BACHELOR OF SCIENCE IN ELECTRONICS ENGINEERING
 2008-2009 Curriculum, 3rd Edition

FIRST YEAR

First Semester

Code	Description	Lec	Lab	Unit	Pre-Req
ENG 014.1	English Plus: Introduction to Study and Thinking Skills	(3)	0	(3)	
ECE 01	Orientation to Electronics Engineering	1	0	1	
ES 01	Engineering Drawing	0	1	1	
FFP 10	Freshman Formation Program	3	0	3	
FIL 22	Komunikasyon sa Akademikong Filipino	3	0	3	
HIST 11.1	Rizal's Life, Works, & Writings	3	0	3	
MA 81	College Algebra	3	0	3	
MA 82	Plane and Spherical Trigonometry	3	0	3	
PSC 10.1	Politics and Governance with Philippine Constitution	3	0	3	
PSYC 1	General Psychology	3	0	3	
PE 1	Physical Fitness	2	0	2	
Total		(25)	3	(28)	
		22		25	

Second Semester

Code	Description	Lec	Lab	Unit	Pre-Req	Co-Req
CHEM 81	General Chemistry (Lecture)	3	0	3		
CHEM 81L	General Chemistry Laboratory	0	1	1		
ENG 16.1	Study, Thinking and Language Skills in English	3	0	3		
FIL 33	Pagbasa at Pagsulat Tungo sa Pananaliksik	3	0	3	FIL 22	
ES 03	Computer Fundamentals & Programming	0	2	2		
MA 83	Advanced Algebra	2	0	2	MA 81	
MA 84	Analytic Geometry	2	0	2	MA 81, MA 82	
MA 85	Solid Mensuration	2	0	2	MA 81, MA 82	
RS 15	The Old Testament	3	0	3		
SOC 01.1	Principles of Sociology w/ Population, Family Planning & HIV/AIDS Education	3	0	3		
PE 2	Rhythmic Activities	2	0	2	PE 1	
Total		23	3	26		

SECOND YEAR

First Semester

Code	Description	Lec	Lab	Unit	Pre-Req	
ACE 21	Discrete Mathematics	3	0	3	MA 81	
ENG 17	Effective Speech Communication	3	0	3	ENG 16.1	
ES 09	Environmental Engineering	2	0	2	CHEM 81, CHEM 81L	
MA 86	Differential Calculus	4	0	4	MA 83, MA 84, MA 85	
PHYS 23	General Physics 1 for ECE	4	0	4	MA 81, MA 82	
PHYS 23L	General Physics 1 for ECE Laboratory	0	1	1		PHYS 23
RS 20	Christology	3	0	3	RS 15	
PHILO 01	Logic	3	0	3		
NSTP 1	National Service Training Program 1	3	0	3		
PE 3	Individual/Dual Sports	2	0	2	PE 2	
Total		27	1	28		

Second Semester

Code	Description	Lec	Lab	Unit	Pre-Req	
ACE 22	Fundamentals of Material Science and Engineering	3	0	3	CHEM 81,81L	
ENG 34.1	The Literatures of the World	3	0	3	ENG 16.1	
MA 87	Integral Calculus	4	0	4	MA 86	
MA 89	Probability & Statistics	3	0	3	MA 81	
PHYS 24	General Physics 2 for ECE	4	0	4	PHYS 23, PHYS 23L	
PHYS 24L	General Physics 2 for ECE Laboratory	0	1	1	PHYS 23, PHYS 23L	PHYS 24
PHILO 15.1	Philosophy of Man and the Human Person	3	0	3	PHILO 01	
NSTP 2	National Service Training Program 2	3	0	3	NSTP 1	
PE 4	Team Sports/Games	2	0	2	PE 3	
Total		22	1	26		

THIRD YEAR

First Semester

Code	Description	Lec	Lab	Unit	Pre-Req	Co-Req
ECE 30	Vector Analysis	3	0	3	MA 87	
ECE 31	Electronic Devices and Circuits	3	1	4	MA 87,PHYS24, 24L, ACE22	EE 31
EE 31	Electric Circuit Theory 1	3	0	3	MA 87, PHYS 24,24L	MA 88
EE 31L	Electric Circuit Theory 1 Laboratory	0	1	1		EE 31
ES 02	Computer Aided Drafting	0	1	1	ES 01	3 rd Yr Standing
ES 04	Statics of Rigid Bodies	3	0	3	PHYS 23/23L, MA 87	
ES 07	Engineering Economy and Accounting	3	0	3	3 rd Yr. Standing	
ES 10.1	Safety Management/Engineering	1	0	1	3 rd Yr. Standing	
MA 88	Differential Equations	3	0	3	MA 87	
PHILO 30.1	Generic Ethics with PERSON (Philosophical Enrichment and Regeneration for Social Orientation and Networking Program)	3	0	3	PHILO 15.1	
Total		22	3	25		

Note 1: Students who do not qualify are required by the English Department to take ENG 014.1, a non-credit subject.

Note 2: FFP10 must be taken within the first year of entry to the University.

Note 3: Subjects taken without completing the required pre-requisite will not be credited.

Note 4: Year Level is determined based on completion of at least 75% of the required number of units of the preceding year level prescribed by the curriculum.

Note 5: The regular load of a student per semester is as prescribed in this curriculum indicated as TOTAL number of units, which is the MAXIMUM number of units that a student can take in the semester.

Second Semester

Code		Description	Lec	Lab	Unit	Pre-Req	Co-Req
ACE	02	Basic Thermodynamics	3	0	3	MA 87, PHYS 24,24L	
ECE	32	Electronic Circuit Analysis and Design	3	1	4	ECE 31 EE 31, EE 31L	
ECE	33	Advanced Engineering Mathematics for ECE	3	0	3	MA 88, ACE 21	
ECE	34	Electromagnetics	3	0	3	ECE 30, PHYS 24/24L, MA 87	
EE	32	Electric Circuit Theory 2	3	0	3	EE 31,EE 31L	
EE	32L	Electric Circuit Theory 2 Laboratory	0	1	1		EE 32
ES	05	Dynamics of Rigid Bodies	2	0	2	ES 04	
ES	06	Mechanics of Deformable Bodies	3	0	3	ES 04	
RS	35	Church and Sacraments	3	0	3	RS 20	
Total			23	2	25		

FOURTH YEAR**First Semester**

Code		Description	Lec	Lab	Unit	Pre-Req	Co-Req
ACE	08	Methods of Research	3	0	3	MA 89, 4 th Yr Standing	
COM	01	Principles of Communications	3	1	4	ECE 32, ECE33	ECE 41/41L
ECE	41	Signals, Spectra and Signal Processing	3	0	3	ECE 33, MA 89	
ECE	41L	Signals, Spectra and Signal Processing Lab.	0	1	1		ECE 41
ECETE	1	Technical Elective 1	3	0	3	4 th Yr. Standing	
EE	41	Energy Conversion	3	0	3	EE 32,EE 32L, ECE 34	
EE	41L	Energy Conversion Laboratory	0	1	1		EE 41
ENG	27	Writing Term Paper in the Discipline and Business Correspondence	3	0	3	ENG 16.1, 4 th Year Standing	
ES	08	Engineering Management	3	0	3	4 th Yr Standing	
Total			21	3	24		

Second Semester

Code		Description	Lec	Lab	Unit	Pre-Req	Co-Req
COM	02	Digital Communications	3	0	3	COM 01	
COM	02L	Digital Communications Laboratory	0	1	1	COM 01	COM 02
ECE	42	Logic Circuits & Switching Theory	3	1	4	ECE 31	
ECE	43	ECE Safety Engineering	2	0	2	4 th Yr. Standing	
ECE	44	Numerical Methods	3	0	3	ECE 33, ES 03	
ECE	44L	Numerical Methods Laboratory	0	1	1	ECE 33, ES 03	ECE 44
ECETE	2	Technical Elective 2	3	0	3	4 th Yr. Standing	
ECE	45	Feedback and Control Systems	3	0	3	ECE 33	
ECE	45L	Feedback and Control Systems Laboratory	0	1	1	ECE 33	EE 45
PHILO	25	Philosophy of Religion	3	0	3	PHILO 30.1	
Total			20	4	24		

Summer

Code		Description	Hours	Lect.	Lab.	Unit	Pre-Req
ECE	80	On-The-Job Training Program (300 hours minimum)	300	0	2	2	COM 02

FIFTH YEAR**First Semester**

Code		Description	Lec	Lab	Unit	Pre-Req	Co-Req
COM	03	Transmission Media & Antenna System	3	0	3	COM 02,02L, ECE 34	
COM	03L	Transmission Media & Antenna System Laboratory	0	1	1	COM 02,02L, ECE 34	COM 03
ECE	51	Industrial Electronics	3	0	3	ECE 32	
ECE	51L	Industrial Electronics Laboratory	0	1	1	ECE 32	ECE 51
ECE	52	Microprocessor Systems	3	0	3	ES 03, ECE 32, ECE 42	
ECE	52L	Microprocessor Systems Laboratory	0	1	1	ES 03, ECE 32, ECE 42	ECE 51
ECE	53	ECE Laws, Contracts, and Ethics	3	0	3	5 th Yr. Standing	
ECE	54	ECE Final Year Project Study 1	1	1	2	ACE 08, 5 th Yr. Standing	
ECETE	3	Technical Elective 3	3	0	3	5 th Yr. Standing	
ENG	41	Humanities: Arts, Aesthetics and Society	3	0	3	ENG 16.1	
Total			19	4	23		

Second Semester

Code		Description	Lec	Lab	Unit	Pre-Req	Co-Req
COM	04	Wireless Communications	3	0	3	COM 03, COM 03L	
COM	05	Data Communications	3	0	3	COM 02, COM 02L	
COM	05L	Data Communications Laboratory	0	1	1	COM 02, COM 02L	COM 05
COM	06	Broadcast Engineering and Acoustics	3	0	3	COM 03, COM 03L	
COM	06L	Broadcast Engineering and Acoustics Laboratory	0	1	1	COM 03, COM 03L	COM 06
ECE	55	ECE Final Year Project Study 2	1	1	2	ECE 54, 5 th Yr. Standing	
ECE	56	Seminars and Field Trips	0	1	1	5 th Yr. Standing	
ECETE	4	Technical Elective 4	3	0	3		
ECON	20.1	Principles of Economics with Taxation, Agrarian Reform and Consumer Education	3	0	3		
RS	55	Christian Morality with Social Teachings of the Church	3	0	3	RS 35	
Total			19	4	23		

Note 6: At least two (2) of the Technical Electives must be under the same track of specialization.

Note 7: Prerequisite subjects of offered Technical Elective is as declared by the ECE Department.

Elective Track Areas:

- Microelectronics
- Instrumentation and Control
- Biotech/Biomedical Engineering