



San Beda College Alabang
School of Engineering and Technology
BACHELOR OF SCIENCE IN ELECTRONICS ENGINEERING
CURRICULUM
Program Study, Effective A.Y. 2023-2024



FIRST YEAR

1st Year - 1st Semester (Term 1)			
COURSE CODE	COURSES	UNITS	PRE-REQ
MATH101	Calculus 1: Differential Calculus	3	
MATH100	Mathematics for Engineers	3	
CHEM101R	Chemistry for Engineers Lec	3	
CHEM101L	Chemistry for Engineers Lab	1	
ENG102	Computer-Aided Drafting	1	
GENE-RES	GEC Elective 1 (Religious Experience and Benedictine Spirituality)	3	
GEN-MM	Mathematics in the Modern World	3	
PEP1	Personality Development	1	
PE1	Physical Activities toward Health and Fitness 1	2	
NSTP1	National Service Training Program 1	3	
TOTAL		23	

1st Year - 2nd Semester (Term 2)			
COURSE CODE	COURSES	UNITS	PRE-REQ
MATH102	Calculus 2: Integral Calculus	3	MATH101
PHYS101R	Physics for Engineers Lec	3	MATH101
PHYS101L	Physics for Engineers Lab	1	
CPE111	Computer Programming (Object-Oriented Programming)	2	
MATH103	Engineering Data Analysis	3	
PEP2	Human Relations Development	1	PEP1
THEO1-NTC	Jesus in the New Testament and Contemporary Times	3	
PE2	Physical Activities toward Health and Fitness 2	2	PE1
NSTP2	National Service Training Program 2	3	NSTP1
TOTAL		21	

SECOND YEAR

2nd Year - 1st Semester (Term 3)			
COURSE CODE	COURSES	UNITS	PRE-REQ
MATH104	Differential Equations	3	MATH102
PHYS102R	Physics 2 Lec	3	MATH101
PHYS102L	Physics 2 Lab	1	
ENG303	Technopreneurship	3	
ECO101	Engineering Economics	3	
MSE301	Material Science and Engineering	3	CHEM101R
GEN-SS	Science, Technology and Society	3	
THEO2-CSM	The Church, Sacraments and its Mission	3	THEO1-NTC
PE3	Physical Activities toward Health and Fitness 3	2	PE2
TOTAL		24	

2nd Year - 2nd Semester (Term 4)			
COURSE CODE	COURSES	UNITS	PRE-REQ
EE111R	Circuits 1 Lec	3	PHYS102R
EE111L	Circuits 1 Lab	1	
ECE203R	Electronics 1: Electronic Devices and Circuits Lec	3	PHYS102R
ECE203L	Electronics 1: Electronic Devices and Circuits Lab	1	
ECE202	Electromagnetics	4	MATH104
ECE201R	Advanced Engineering Mathematics for ECE Lec	3	MATH104
ECE201L	Advanced Engineering Mathematics for ECE Lab	1	
GENE-ICC	GEC Elective 2 (Indigenous Creative Crafts)	3	
THEO3-FAM	Marriage and Family Life	3	THEO2-CSM
PE4	Physical Activities towards Health and Fitness 4	2	PE3
TOTAL		24	

THIRD YEAR

3rd Year - 1st Semester (Term 5)			
COURSE CODE	COURSES	UNITS	PRE-REQ
EE112R	Circuits 2 Lec	3	EE111R
EE112L	Circuits 2 Lab	1	
ECE204R	Electronics 2: Electronic Circuit Analysis and Design Lec	3	ECE203R
ECE204L	Electronics 2: Electronic Circuit Analysis and Design Lab	1	
ECE301R	Communications 1: Principles of Communication Systems Lec	3	ECE203R
ECE301L	Communications 1: Principles of Communication Systems Lab	1	
ECE306R	Signals, Spectra, and Signal Processing Lec	3	ECE201R
ECE306L	Signals, Spectra, and Signal Processing Lab	1	
GEN-JR	Life and Works of Rizal	3	
GEN-PC	Purposive Communications	3	
GEN-LIE	GEC Elective 3 (Living in the IT Era)	3	
THEO4-CST	Social Teachings of the Church and Benedictine and Lay Apostolate	3	
TOTAL		28	

3rd Year - 2nd Semester (Term 6)			
COURSE CODE	COURSES	UNITS	PRE-REQ
ECE205R	Electronics 3: Electronic Systems and Design Lec	3	ECE204R
ECE205L	Electronics 3: Electronic Systems and Design Lab	1	
ECE302R	Communications 2: Modulation and Coding Techniques Lec	3	ECE301R
ECE302L	Communications 2: Modulation and Coding Techniques Lab	1	
CPE112R	Digital Electronics 1: Logic Circuits and Switching Theory Lec	3	ECE203R
CPE112L	Digital Electronics 1: Logic Circuits and Switching Theory Lab	1	
ECE305R	Feedback and Control Systems Lec	3	ECE201R
ECE305L	Feedback and Control Systems Lab	1	
ECE307	Methods of Research	3	3rd year Standing
GEN-ET	Ethics (Being and Society)	3	
GEN-RP	Reading in Philippine History	3	
TOTAL		25	

3rd Year - Summer Semester (Term 7)			
COURSE CODE	COURSES	UNITS	PRE-REQ
ECE407	On-the-Job Training (240 hours)	3	3rd year Standing
TOTAL		3	

FOURTH YEAR

4th Year - 1st Semester (Term 8)			
COURSE CODE	COURSES	UNITS	PRE-REQ
ECE303R	Communications 3: Data Communications Lec	3	ECE302R
ECE303L	Communications 3: Data Communications Lab	1	
ECE304R	Communications 4: Transmission Media and Antenna Systems Lec	3	ECE302R
ECE304L	Communications 4: Transmission Media and Antenna Systems Lab	1	
CPE113R	Digital Electronics 2: Microprocessor and Microcontroller Systems and Design Lec	3	CPE112R
CPE113L	Digital Electronics 2: Microprocessor and Microcontroller Systems and Design Lab	1	
ECE401R	ECE Elective 1 Lec	3	ECE304R
ECE401L	ECE Elective 1 Lab	1	
ECE403	ECE Design 1/ Capstone Project 1	1	4th year Standing
ECE411	ECE Special Problems 1	1	4th year Standing
ECE405	ECE Laws, Contracts, Ethics, Standards and Safety	3	None
GEN-CW	The Contemporary World	3	
TOTAL		24	

4th Year - 2nd Semester (Term 9)			
COURSE CODE	COURSES	UNITS	PRE-REQ
ECE402R	ECE Elective 2 Lec	3	ECE304R
ECE402L	ECE Elective 2 Lab	1	
ECE404	ECE Design 2/ Capstone Project 2	1	ECE401R
ECE412	ECE Special Problems 2	1	ECE411
ECE406	ECE Seminars/Colloquium	1	4th year Standing
EMG211	Engineering Management	2	None
ENV201	Environmental Science and Engineering	3	None
GEN-AA	Art Appreciation	3	
GEN-US	Understanding the self	3	
TOTAL		18	

GRAND TOTAL: 190

ECE ELECTIVES : 8 UNITS

COURSE CODE	COURSES	UNITS	PRE-REQ
ECE401R	ECE Elective 1: Advanced Communication System and Design Lec	3	
ECE401L	ECE Elective 1: Advanced Communication System and Design Lab	1	

COURSE CODE	COURSES	UNITS	PRE-REQ
ECE402R	ECE Elective 2: Advanced Networking Lec	3	
ECE402L	ECE Elective 2: Advanced Networking Lab	1	