BACHELOR OF SCIENCE IN ELECTRONICS ENGINEERING

EFFECTIVE ACADEMIC YEAR 2018-2019

(Updated Program of Study as of Academic Year 2020-2021)

COURSE CODE	COURSE TITLE	HOURS		UNITS	PRE-REQUISITE	CO-REQUISITE
		LEC	LAB			
FIRST YEAR						
FIRST SEMESTER		**15**	**9**	**23**		
ECE181	Orientation to ECE	0	3	1		
MATH137	Engineering Calculus 1	3	0	3		
CHEM131	Chemistry for Engineers, lec	3	0	3		CHEM181
CHEM181	Chemistry for Engineers, lab	0	3	1		CHEM131
ES083	Computer Aided Design and Drafting	0	3	1		
MATH031	Mathematics in the Modern World	3	0	3		
STS031	Science, Technology and Society	3	0	3		
PHILO031	Ethics	3	0	3		
PE103	Movement Enhancement			2		
NSTP111	National Service Training Program 1			3		
SECOND SEMESTER		**16**	**12**	**25**		
ECE132	Physics 2, lec	3	0	3	MATH137	PHYS 132, ECE182
ECE182	Physics 2, lab	0	3	1	MATH137	PHYS182, ECE132
ECE162	ECE Tech 1 (Electronics Shop Practice)	1	3	2	ECE181	
MATH138	Engineering Calculus 2	3	0	3	MATH137	
PHYS132	Physics for Engineers, lec	3	0	3	MATH137	PHYS182, MATH138
PHYS182	Physics for Engineers, lab	0	3	1	MATH137	PHYS132, MATH138
ES031	Engineering Data Analysis	3	0	3	MATH137	
ES084	Computer Programming 1	0	3	1		
ENGL031	Purposive Communication	3	0	3		
PE104	Fitness Exercises			2	PE103	
NSTP112	National Service Training Program 2			3	NSTP111	
SECOND YEAR						
FIRST SEMESTER		**19**	**12**	**25**		
ECE231	Electronics 1: Electronic Devices and Circuits, lec	3	0	3	ECE132/182, ECE162	ECE281
ECE281	Electronics 1: Electronic Devices and Circuits, lab	0	3	1	ECE132/182, ECE162	ECE231
ECE261	ECE TECH 2 (Computer Fundamentals and Servicing)	1	3	2	ECE162	
EE231	Electrical Circuits 1, lec	3	0	3	ECE132, PHYS132, MATH138	EE281
EE281	Electrical Circuits 1, lab	0	3	1	ECE182, PHYS132, MATH138	EE231
MATH237	Differential Equations	3	0	3	MATH138	
ES032	Engineering Economics	3	0	3	ES031	
ES036	Environmental Science and Engineering	3	0	3	CHEM131/181	
ES085	Computer Programming 2	0	3	1	ES084	
HUM031	Art Appreciation	3	0	3	None	
PE205	Physical Activities Towards Health and Fitness I			2	PE103	
SECOND SEMESTER		**21**	**12**	**27**		
ECE232	Electronics 2: Electronic Circuit Analysis and Design, lec	3	0	3	ECE231/281, ECE261	ECE282
ECE282	Electronics 2: Electronic Circuit Analysis and Design, lab	0	3	1	ECE231/281, ECE261	ECE232
ECE234	Advanced Engineering Mathematics for ECE, lec	3	0	3	MATH237	ECE284
ECE284	Advanced Engineering Mathematics for ECE, lab	0	3	1	MATH237	ECE234

Code	Title	Lec	Lab	Units	Prerequisite	Co-requisite
ECE236	Communications 1: Principles of Communication System, lec	3	0	3	ECE231/281, ECE261	ECE286
ECE286	Communications 1: Principles of Communication System, lab	0	3	1	ECE231/281, ECE261	ECE236
EE232	Electrical Circuits 2, lec	3	0	3	EE231/281	EE282
EE282	Electrical Circuits 2, lab	0	3	1	EE231/281	EE232
ES034	Engineering Management	3	0	3		
ES037	Materials Science and Engineering	3	0	3	CHEM131/181	
PSYCH031	Understanding the Self	3	0	3		
PE206	Physical Activities Towards Health and Fitness II			2	PE103	
SUMMER TERM		**8**	**3**	**9**		
ECE330	Occupational Health & Safety	2	0	2		
ECE340	Advanced Computer Programming	2	3	3	ES085	
ECE350	Electromagnetics for ECE	4	0	4	EE232/282	
THIRD YEAR						
FIRST SEMESTER		**18**	**18**	**24**		
ECE331	Signals, Spectra & Signal Processing, lec	3	0	3	ECE232/282, ECE236/286	ECE381
ECE381	Signals, Spectra & Signal Processing, lab	0	3	1	ECE232/282, ECE236/286	ECE331
ECE333	Communications 2: Modulation and Coding Techniques, lec	3	0	3	ECE236/286	ECE383
ECE383	Communications 2: Modulation and Coding Techniques, lab	0	3	1	ECE236/286	ECE333
ECE335	Digital Electronics 1: Logic Circuits and Switching Theory, lec	3	0	3	ECE231/281	ECE385
ECE385	Digital Electronics 1: Logic Circuits and Switching Theory, lab	0	3	1	ECE231/281	ECE335
ECE337	Feedback and Control Systems, lec	3	0	3	ECE340	ECE387
ECE387	Feedback and Control Systems, lab	0	3	1	ECE340	ECE337
ECECC381	Comprehensive Evaluation Course 1 (Math)	0	6	2	ECE234/284	
GE-ECE1	General Education Elective 1	3	0	3		
SOCSCI031	Readings in Philippine History	3	0	3		
SECOND SEMESTER		**17**	**21**	**24**		
ECE332	Electronics 3: Electronic Systems and Design, lec	3	0	3	ECE232/282, ECE330	ECE382
ECE382	Electronics 3: Electronic Systems and Design, lab	0	3	1	ECE232/282, ECE330	ECE332
ECE334	Communications 3: Data Communications, lec	3	0	3	ECE333/383, ECE350	ECE384
ECE384	Communications 3: Data Communications, lab	0	3	1	ECE333/383, ECE350	ECE334
ECE336	Digital Electronics 2: Microprocessor & Microcontroller Systems and Design, lec	3	0	3	ECE335/385	ECE386
ECE386	Digital Electronics 2: Microprocessor & Microcontroller Systems and Design, lab	0	3	1	ECE335/385	ECE336
ECE338	Communications 4:Transmission Media, Antenna System and Design, lec	3	0	3	ECE333/383, ECE350	ECE388
ECE388	Communications 4:Transmission Media, Antenna System and Design, lab	0	3	1	ECE333/383, ECE350	ECE338
ECE362	Methods of Research	2	3	3	ECE340, ECE337/387, ECE331, ECE333	
ECECC382	Comprehensive Evaluation Course 2 (GEAS)	0	6	2	all ES subjects, ECE330, ECE340, ECE350	
GE-ECE2	General Education Elective 2	3	0	3		
SUMMER TERM		**1**	**6**	**3**		
ECE460	On-the-Job Training (240 hours)	1	6	3	4th year standing	

FOURTH YEAR						
FIRST SEMESTER		**12**	**18**	**18**		
ECE431	ECE Laws, Contracts, Ethics and Standards	3	0	3	4th year standing	
ECE481	Design1/Capstone Project 1	0	6	2	ECE362, ECE337/387	
ECETE461	ECE Technical Elective 1	3	3	4	ECE332, ECE336, ECE338, ECE234	
ECETE463	ECE Technical Elective 2	3	3	4	ECE335, ECE336, ECE338, ECE234	
ECECC483	Comprehensive Evaluation Course 3 (Electronics)	0	6	2	ECE332/382, ECE336/386	
GE-ECE3	General Education Elective 3	3	0	3		
SECOND SEMESTER		**11**	**18**	**17**		
ECE482	Design 2/Capstone Project 2	0	6	2	ECE481	
ECE484	Seminars/Colloquium	0	3	1	4th year standing	
ECETE462	ECE Technical Elective 3	2	3	3	ECETE461, ECETE463	
ECECC484	Comprehensive Evaluation Course 4 (EST)	0	6	2	ECE334/384, ECE338/388	
ES038	Technopreneurship	3	0	3	ES034	
SOCSCI032	The Contemporary World	3	0	3		
RIZAL031	The Life and Works of Rizal	3	0	3		
GRAND TOTAL		**138**	**129**	**195**		
RECOMMENDED GENERAL EDUCATION ELECTIVES						
ENGL014	Technical Writing/ Communication	3	0	3		
SSP031	Creative Thinking Tools	3	0	3		
SSP032	Sustainability Development and Global Citizenship	3	0	3		
TECHNICAL ELECTIVES						
A. INSTRUMENTATION AND CONTROL TRACK						
ECETE461IC	TECHNICAL ELECTIVE 1: Advanced Instrumentation and Control System	3	3	4	ECE332/382, ECE336/386	
ECETE463IC	TECHNICAL ELECTIVE 2: Robotics Technology	3	3	4	ECE332/382, ECE336/386	
ECETE464IC	TECHNICAL ELECTIVE 3: Electronics Ancillary Systems (common to Instrumentation & Telecom Tracks)	2	3	3	ECETE461IC, ECETE463IC	
B. TELECOMMUNICATIONS TRACK						
ECETE461TC	TECHNICAL ELECTIVE 1: Advanced Communication System & Design (Wireless)	3	3	4	ECE334/384, ECE338/388	
ECETE463TC	TECHNICAL ELECTIVE 2:Advanced Networking	3	3	4	ECE334/384, ECE338/388	
ECETE464TC	TECHNICAL ELECTIVE 3: Electronics Ancillary Systems (common to Instrumentation & Telecom Tracks)	2	3	3	ECETE461TC, ECETE463TC	
OPTIONAL TRACK ELECTIVES:						
C. Power Electronics						
	Advanced Power Supply Systems	3	3	4		
	Renewable Energy Systems	3	3	4		
D. Building Information and Communications Technology Infrastructure						
	ICT Infrastructure	3	3	4		
	Electronics Ancillary System	3	3	4		