

CURRICULUM REVISION FORM 2 (Semestral Offering)

Program Bachelor of Science in Electronics Engineering
Department Engineering Sciences
College College of Engineering and Information Technology
Date of Last Revision: 4/22/2009

FIRST YEAR

First Semester			<i>Units</i>	<i>Units</i>		<i>Contact per week</i>		<i>Pre-requisites</i>
<i>Course No.</i>		<i>Description</i>		<i>Lec</i>	<i>Lab</i>	<i>Lec</i>	<i>Lab</i>	
Math	1.7	College Algebra	3	3	0	3	0	
Math	2.1	Plane and Spherical Trigonometry	3	3	0	3	0	
IT	1	Computer Concepts and Fundamentals	3	2	1	2	3	
Engl	1	Study and Thinking Skills	3	3	0	3	0	Passing NSAE
ES	1	Engineering Drawing	2	1	1	1	3	
FIL	1	Komunikasyon sa Akademikong Filipino	3	3	0	3	0	
PE	1	Physical Fitness	2	2	0	2	0	
NSTP	1	CMT/LTS	3	0	0	0	0	
Total			22	17	2	17	6	

Second Semester			<i>Units</i>	<i>Units</i>		<i>Contact per week</i>		<i>Pre-requisites</i>
<i>Course No.</i>		<i>Description</i>		<i>Lec</i>	<i>Lab</i>	<i>Lec</i>	<i>Lab</i>	
Math	6.4	Analytic Geometry	3	3	0	3	0	Math 1.7, Math 2.1
Chem	10	General Chemistry I (lec)	3	3	0	3	0	
Chem	10.1	General Chemistry I (lab)	2	0	6	0	6	
Math	4	Advanced Algebra	2	2	0	2	0	Math 1.7
ES	2	Computer Aided Drafting	1	0	1	0	3	ES 1, IT1
Engl	2	Writing in the Discipline	3	3	0	3	0	Engl 1
Fil	2	Pagbasa at Pagsulat Tungo sa Pananaliksik	3	3	0	3	0	Fil 1
Lit	1	Philippine Literature	3	3	0	3	0	
PE	2	Rhythmic Activities	2	2	0	2	0	PE 1
NSTP	2	CMT/LTS	3	0	0	0	0	
Total			25	19	7	19	9	

SECOND YEAR

First Semester			<i>Units</i>	<i>Units</i>		<i>Contact per week</i>		<i>Pre-requisites</i>
<i>Course No.</i>		<i>Description</i>		<i>Lec</i>	<i>Lab</i>	<i>Lec</i>	<i>Lab</i>	
Math	9.1	Differential Calculus	4	4	0	4	0	Math 6.4, Math 4
Math	6.5	Solid Mensuration	2	2	0	2	0	Math 6.4
CSC	101	Fund. Of Problem Solving and Programming I	3	2	1	2	3	IT 1, Math 1.7
Phys	10	General Physics I lec	3	3	0	3	0	Math 1.7, Math 2.1
Phys	10.1	General Physics I lab	1	0	3	0	3	Math 1.7, Math 2.1
Philo	2	Introduction to Logic	3	3	0	3	0	
SocSci	20	Philippine History, Roots and Development	3	3	0	3	0	
SocSci	1	General Psychology	3	3	0	3	0	
PE	3	Individual and Dual Sports	2	2	0	2	0	PE 1
Total			24	22	4	22	6	

Second Semester			<i>Units</i>	<i>Units</i>		<i>Contact per week</i>		<i>Pre-requisites</i>
<i>Course No.</i>		<i>Description</i>		<i>Lec</i>	<i>Lab</i>	<i>Lec</i>	<i>Lab</i>	
Math	9.2	Integral Calculus	4	4	0	4	0	Math 9.1
Hum	1	Introduction to Humanities	3	3	0	3	0	
Engl	4	Technical Writing	3	3	0	3	0	Engl 2
CSC	121	Data Structure I	3	2	1	2	3	CSC 101
Phys	12	General Physics III lec	3	3	0	3	0	Phys 10, Phys 10.1
Phys	12.1	General Physics III lab	1	0	1	0	3	Phys 10, Phys 10.1
CSC	141	Discrete Mathematics for Engineers & Scientists	3	3	0	3	0	Math 4, Philo 2
SocSci	21	Philippine Government and New Constitution	3	3	0	3	0	
PE	4	Major Sports and Team Sports	2	2	0	2	0	PE 1
Total			25	23	2	23	6	

THIRD YEAR

First Semester			<i>Units</i>	<i>Units</i>		<i>Contact per week</i>		<i>Pre-requisites</i>
<i>Course No.</i>		<i>Description</i>		<i>Lec</i>	<i>Lab</i>	<i>Lec</i>	<i>Lab</i>	
SocSci	10	Gen. Sociology with Population Education	3	3	0	3	0	
ES	4	Statics of Rigid Bodies	3	3	0	3	0	Phys 10, Phys 10.1, Math 9.2
ES	3	Differential Equation for Engineers	3	3	0	3	0	Math 9.2
SocSci	22	Life and Works of Rizal	3	3	0	3	0	
ES	8	Probability and Statistics for Scientists and Engineers	3	3	0	3	0	Math 9.2
ES	16	Vector Analysis	3	3	0	3	0	Phys 12, Phys 12.1, Math 9.2
EE	101	Electric Circuit Theory I	4	3	1	3	3	Phys 12, Phys 12.1, Math 9.2
Total			22	21	1	21	3	

Second Semester			Units	Units		Contact per week		Pre-requisites
Course No.	Description	Lec		Lab	Lec	Lab		
ES 5	Dynamics of Rigid Bodies	3	3	0	3	0	ES 4	
ES 11	Fundamentals of Material Science and Engineering	3	2	1	2	3	Chem 10, Phys 12	
ECE 101	Electronic Devices and Circuits (Electronic Circuit I)	4	3	1	3	3	EE 101	
ECE 105	Electromagnetics	3	3	0	3	0	ES 16	
ES 9	Advanced Engineering Math	3	3	0	3	0	ES 3	
ECE 129	Signals, Spectra, Signal Processing	4	3	1	3	3	ES 8, ES 9 co-requisite	
EE 102	Electric Circuit Theory II	4	3	1	3	3	EE 101	
Total			24	20	4	20	12	

FOURTH YEAR

First Semester			Units	Units		Contact per week		Pre-requisites
Course No.	Description	Lec		Lab	Lec	Lab		
ES 6	Mechanics of Deformable Bodies	4	4	0	4	0	ES 5	
ECE 102	Electronic Circuit Analysis and Design (Electronic Circuit II)	4	3	1	3	3	ECE 101	
ECE 103	Logic Circuits and Switching Theory	4	3	1	3	3	ECE 101	
ECE 111	Principles of Communications	4	3	1	3	3	ECE 101	
ECE 130	Transmission Media and Antenna System (with Optical Transmission)	4	3	1	3	3	EE105	
ES 7	Fluid Mechanics	4	3	1	3	3	ES 5	
ECE 120	Feedback and Control Systems	4	3	1	3	3	ES 9	
Total			28	18	6	18	18	

Second Semester			Units	Units		Contact per week		Pre-requisites
Course No.	Description	Lec		Lab	Lec	Lab		
ES 14	Research Methods	3	3	0	3	0	Eng 4, 4th year standing	
ES 10	Engineering Economy	3	3	0	3	0	Math 9.2	
ME 101	Thermodynamics I	3	3	0	3	0	Phys 12, Phys 12.1, Math 9.2	
ECE 104	Electronic Circuit III	4	3	1	3	3	ECE 102	
ECE 192	Safety Management for ECE	1	1	0	1	0	ECE 101	
ECE 112	Data Communications and Computer Networking I	4	3	1	3	3	ECE 111	
ECE 113	Wire and Wireless Communications System	4	3	1	3	3	ECE 111	
Elective 1	ECE Elective 1	3					Refer to track	
Total			25	19	3	19	9	

Summer

ON THE JOB TRAINING (360 hours) - course requirement 3 Passed ECE 102 & ECE 113
 (Note: An additional 500.00 pesos per student will be collected to defray expenses during the supervision and linkages activities which will be deposited under the college TF-OJT account)

FIFTH YEAR

First Semester			Units	Units		Contact per week		Pre-requisites
Course No.	Description	Lec		Lab	Lec	Lab		
ES 15	Numerical Methods	4	3	1	3	3	ES 9, CSC 101	
ECE 199	Thesis/Special Project	1	0	3	0	3	5th year standing	
ECE 127	Microprocessor and Embedded Systems	4	3	1	3	3	ECE 103, CSC 101	
ECE 121	Digital Communications	4	3	1	3	3	ECE 111	
ECE 106	Industrial Electronics & Instrumentation	4	3	1	2	3	ECE 102	
ES 13	Environmental Engineering	2	2	0	2	0	Chem 10, Chem 10.1	
Elective 2	ECE Elective 2	3					Refer to track	
Total			22	39	12	38	30	

Second Semester			Units	Units		Contact per week		Pre-requisites
Course No.	Description	Lec		Lab	Lec	Lab		
ECE 196	Electronics, Telecommunications, Laws, Trips and Seminars	3	3	0	3	0	5th year standing	
EE 108	Energy Conversion	4	3	1	3	3	EE 101	
ES 12	Engineering Management	3	3	0	3	0	Math 9.2	
Elective 3	ECE Elective 3	3					Refer to track	
Elective 4	ECE Elective 4	3					Refer to track	
Total			16	48	13	47	33	

GRAND TOTAL 236

MICROELECTRONICS TRACK

ELECTIVES		Units	Units		Contact Hrs.		PRE-REQTS.
COURSE NO.	COURSE DESCRIPTION		Lec	Lab	Lec	Lab	
Elective 1	IC Packaging and Failure Analysis	3	3	0	3	0	ES 11, ECE 102
Elective 2	Introduction to Digital VLSI	3	2	1	2	3	ECE 104, ECE 127
Elective 3	RF Design-Silicon Level	3	2	1	2	3	ECE 104
Elective 4	VLSI Test and Measurement	3	2	1	2	3	Intro to Digital VLSI

INSTRUMENTATION AND CONTROL TRACK

ELECTIVES		Units	Units		Contact Hrs.		PRE-REQTS.
COURSE NO.	COURSE DESCRIPTION		Lec	Lab	Lec	Lab	
Elective 1	Modelling and Simulation	3	2	1	2	3	ES 8, CSC 101
Elective 2	Digital Control System	3	2	1	2	3	ECE 120
Elective 3	Sensors Technology	3	2	1	2	3	ECE 106
Elective 4	Mechatronics and Robotics	3	2	1	2	3	ECE 106, ECE 127

INFORMATION AND COMPUTING TECHNOLOGIES TRACK

ELECTIVES		Units	Units		Contact Hrs.		PRE-REQTS.
COURSE NO.	COURSE DESCRIPTION		Lec	Lab	Lec	Lab	
Elective 1	Web Page Development and Design	3	2	1	2	3	CSC 101
Elective 2	Intro to Remote Sensing and GIS	3	2	1	2	3	ECE 129
	Data Communications and Computer Networking II	3					ECE 112
Elective 3			2	1	2	3	
Elective 4	Software Engineering	3	2	1	2	3	CSC 101