



COLLEGE OF ENGINEERING
BACHELOR OF SCIENCE IN COMPUTER ENGINEERING CURRICULUM
 (ENHANCED CURRICULUM 2024)

FIRST YEAR													
FIRST SEMESTER						SECOND SEMESTER							
Course Code	Course Description	No. of Hours		Units	Pre-Requisite	Co-Requisite	Course Code	Course Description	No. of Hours		Units	Pre-Requisite	Co-Requisite
		LEC	LAB						LEC	LAB			
Math 110	Pre - Calculus	3	0	3		Math 111	MATH 112	Calculus 2	5	0	5	Math 111, Math 110	
Math 111	Calculus 1	5	0	5		Math 110	PHYS 111	Physics for Engineers (Lec)	3	0	3	Math 111	Phy 111L
Chem 111	Chemistry for Engineers (Lec)	3	0	3		Chem 111L	PHYS 111L	Physics for Engineers (Lab)	0	3	1	Math 111	Phy 111
Chem 111L	Chemistry for Engineers (Lab)	0	3	1		Chem 111	CpE 113	Object-Oriented Programming	0	6	2	CpE 112	
CpE 111	Computer Engineering as Discipline	1	0	1			CpE 114	Discrete Mathematics	3	0	3	Math 111	
CpE 112	Programming Logic and Design	0	6	2			CpE 115	Computer Hardware Fundamentals	0	3	1		
GE-ST	Science, Technology and Society	3	0	3			GE-CW	Contemporary World	3	0	3		
GE-MW	Mathematics in Modern World	3	0	3			GE-US	Understanding the Self	3	0	3		
GE-PC	Purposive Communication	3	0	3			GE-PH	Readings in Philippine History	3	0	3		
PE 11	PathFit 1 Movement Competency Training	2	0	2			PE 12	PathFit 2 Exercise – Based Fitness Activities	2	0	2	PE 11	
NSTP 111	National Service Training Program 1	3	0	3			NSTP 121	National Service Training Program 2	3	0	3	NSTP 111	
TOTAL		26	9	29			TOTAL		26	12	29		
SECOND YEAR													
FIRST SEMESTER						SECOND SEMESTER							
Course Code	Course Description	No. of Hours		Units	Pre-Requisite	Co-Requisite	Course Code	Course Description	No. of Hours		Units	Pre-Requisite	Co-Requisite
		LEC	LAB						LEC	LAB			
MATH 113	Differential Equations	3	0	3	MATH 112		MATH 115	Numerical Methods (Lec)	3	0	3	MATH 113	MATH 115L
MATH 114	Engineering Data Analysis	3	0	3	MATH 111		MATH 115L	Numerical Methods (Lab)	0	3	1	MATH 113	MATH 115
CpE 116L	Data Structures & Algorithm	0	6	2	CpE 113		CpE 119	Software Design (Lec)	3	0	3	CpE 116L	CpE 119L
CpE 117	Fundamentals of Electrical Circuits (Lec)	3	0	3	Phy 111	CpE 117L	CpE 119L	Software Design (Lab)	0	3	1	CpE 116L	CpE 119
CpE 117L	Fundamentals of Electrical Circuits (Lab)	0	3	1	Phy 111L	CpE 117	CpE 120	Fundamentals of Electronic Circuits (Lec)	3	0	3	CpE 117	CpE 120L
CpE 118	Database Management	3	0	3	CpE 113		CpE 120L	Fundamentals of Electronic Circuits (Lab)	0	3	1	CpE 117	CpE 120
CpE 118L	Database Management	0	3	1	CpE 113		CpE 121	WEB Technologies (Lec)	3	0	3	CpE 116L, CpE 118	CpE 121L
ES 111	Computer-Aided Drafting	0	3	1	2nd Year Standing		CpE 121L	WEB Technologies (Lab)	0	3	1	CpE 116L, CpE 118	CpE 121
ES 112	Engineering Economics	3	0	3			GE-PE	Peace Education	3	0	3		
GE-GS	Gender and Society	3	0	1			GE-AA	Art Appreciation – The Art of Engineering	3	0	3		
PE 21	PATH-Fit 3 Individual/Dual Sports	2	0	2	PE 12		GE-PI	Philippine Indigenous People	3	0	3		
TOTAL		20	15	23			PE 22	PATH-Fit 4	2	0	2	PE 21	
TOTAL		23	12	27			TOTAL		23	12	27		
THIRD YEAR													
FIRST SEMESTER						SECOND SEMESTER							
Course No.	Descriptive Title	No. of Hours		Units	Pre-requisite	Co-requisite	Course No.	Descriptive Title	No. of Hours		Units	Pre-requisite	Co-requisite
		LEC	LAB						LEC	LAB			
CpE 122	Logic Circuits and Design (Lec)	3	0	3	CpE 120	CpE 122L	CpE 130	Computer Networks and Security (Lec)	3	0	3	CpE 123	CpE321L
CpE 122L	Logic Circuits and Design (Lab)	0	3	1	CpE 120	CpE 122	CpE 130L	Computer Networks and Security (Lab)	0	3	1	CpE 123	CpE 130
CpE 123	Data and Digital Communication	3	0	3	CpE 120		CpE 131	Microprocessors (Lec)	3	0	3	CpE 122	CpE322L
CpE 124	Operating System	3	0	3	CpE 116		CpE 131L	Microprocessors (Lab)	0	3	1	CpE 122	CpE322
CpE 125	Introduction to HDL	0	3	1	CpE 112, CpE 120	CpE 122	CpE 132	Feedback and Control Systems	3	0	3	MATH 115, CpE 120	
CpE 126	Fundamentals of Mixed Signals and Sensors	3	0	3	CpE 120		CpE 133	CpE Laws and Professional Practice	2	0	2	3rd yr Standing	
CpE 127	Introduction to Embedded Systems (Lec)	3	0	3	CpE 112, CpE 120	CpE 127L	CpE 134	Embedded Systems Design (Lec)	2	0	2	CpE 127	CpE325L
CpE 127L	Introduction to Embedded Systems (Lab)	0	3	1	CpE 112, CpE 120	CpE 127	CpE 134L	Embedded Systems Design (Lab)	0	3	1	CpE 127	CpE325
CpE 128	Computer Engineering Drafting and Design	0	3	1	CpE 120		ES 113	Engineering Management	3	0	3	3rd Yr Standing	
CpE 129	Methods of Research & Writing	3	0	3	GE-PC, MATH 114	CpE 127	ES 114	Technopreneurship	3	0	3	3rd yr Standing	
GE-E	Engineering Ethics	3	0	3	3rd yr Standing		CPE 135	Basic Occupational Health and Safety	3	0	3	3rd yr Standing	
IC 111L	Community – Based Engagement for Computer Eng	0	3	1	3rd yr Standing		TOTAL		22	9	25		
TOTAL		21	15	26			TOTAL		22	9	25		
SUMMER													
Course No.	Descriptive Title	No. of Hours		Units	Pre-requisite	Co-requisite	LEC	LAB	Units	Pre-requisite	Co-requisite		
CpE 331	On the-job-training - 240 hours	3	3	4			3	3	4	Completed all Technical Courses prior to OJT			
TOTAL		3	3	4			3	3	4				
FOURTH YEAR													
FIRST SEMESTER						SECOND SEMESTER							
Course No.	Descriptive Title	No. of Hours		Units	Pre-requisite	Co-requisite	Course No.	Descriptive Title	No. of Hours		Units	Pre-requisite	Co-requisite
		LEC	LAB						LEC	LAB			
CPE 137	Computer Architecture and Organization (Lec)	3	0	3	CpE 131	CPE 137L	CPE 142AL	CpE Practice & Design 2	0	6	3	CPE 139, CPE 141	
CPE 137L	Computer Architecture and Organization (Lab)	0	3	1	CpE 131	CPE 137	CPE 143	Seminars & Field Trips/Tour	0	3	1	4th yr Standing	
CPE 138	Emerging Technologies in CpE	3	0	3	4th yr Standing	CPE 139	CPE 144	System-on-chip-Design (Lec)	2	0	2	CPE 125	CPE 144L
CPE 139L	CpE Practice and Design 1	0	3	1	CpE 131, CpE 129		CPE 144L	System-on-chip-Design (Lab)	0	3	1	CPE 125	CPE 144
CPE 140	Digital Signal Processing (Lec)	3	0	3	CpE 132	CPE 140L	RIZAL	Rizal's Life and Works	3	0	3		

CPE 140L	Digital Signal Processing (Lab)	0	3	1	CpE 132	CPE 140
CPE 141	Advanced Embedded Systems Design (Lec)	2	0	2	CpE 134	CPE 141L
CPE 141L	Advanced Embedded Systems Design (Lab)	0	3	1	CpE 134	CPE 141
TOTAL		11	12	15		

TOTAL	5	12	10		
GRAND TOTAL	157	99	188		