

College de San Juan de Letran Calamba

Brgy. Bucal, City of Calamba, Laguna

BACHELOR OF SCIENCE IN COMPUTER ENGINEERING

Curriculum Year 2023-2024 (Modified Curriculum for 3rd Year)

COURSE CODE	COURSE TITLE	Lec Units/Hrs	Lab Units	TOTAL		PRE-REQUISITES/ CO-REQUISITES
				Hrs		
FIRST YEAR, First Semester						
CHM081L	Chemistry for Engineers Lab		1	3	1	co-req CHM083
CHM083	Chemistry for Engineers	3			3	co-req CHM081L
CpE001	Computer Engineering as a Discipline	1			1	
CpE012L	Programming Logic and Design		2	6	2	
GEC013	Science, Technology, and Society	3			3	
LQEC23-013	Letran Quality Enrichment Course I (Letran Calamba Identity and 21st Century Learning Skills)	3			3	
MATH153A	Calculus 1	3			3	
MATH343A	Engineering Mathematics 1	3			3	
NSTP1-18	National Service Training Program 1	3			3	
PATHFIT1002	Movement Competency Training		2		2	
		Total	21	3	9	24
FIRST YEAR, Second Semester						
CpE042L	Object Oriented Programming Lab		2	6	2	CpE012L
GEC003	Understanding the Self	3			3	
GEC033	Mathematics in the Modern World	3			3	
MATH153B	Calculus 2	3			3	MATH153A, co-req PHY083, PHY081L
MATH323	Engineering Data Analysis	3			3	MATH153A
MATH343B	Engineering Mathematics 2	3			3	MATH343A
NSTP2-18	National Service Training Program 2	3			3	NSTP1-18
PATHFIT2022	Exercise-Based Fitness	2			2	PATHFIT1002
PHY081L	Physics for Engineers Lab		1	3	1	MATH153A, co-req MATH153B, PHY083
PHY083	Physics for Engineers	3			3	MATH153A, co-req MATH153B, PHY081L
RELED053	The Catholic Christian Faith	3			3	
		Total	26	3	9	29
SECOND YEAR, First Semester						
CpE031L	Fundamentals of Electrical Circuits Lab		1	3	1	PHY083, PHY081L, co-req CpE033
CpE033	Fundamentals of Electrical Circuits	3			3	PHY083, PHY081L, co-req CpE031L
CpE072L	Data Structures and Algorithms		2	6	2	CpE042L
DRW051L	Computer Aided Drafting		1	3	1	
ENGG103	Engineering Economics	3			3	MATH153A
GEC073	Ethics	3			3	
LQEC23-023	Letran Quality Enrichment Course II (21st Century Literacy Skills & Life Skills and Sustainability)	3			3	LQEC23-013
MATH223	Differential Equations	3			3	MATH153B
MATH283	Discrete Mathematics	3			3	MATH153A
PATHFIT3032	Individual /Dual Sports	2			2	PATHFIT1002, PATHFIT2022
RELED063	Contemporary Issues in Christian Marriage	3			3	RELED053
		Total	23	4	12	27
SECOND YEAR, Second Semester						
CpE051L	Fundamentals of Electronic Circuits Lab		1	3	1	CpE033, CpE031L, co-req CpE053
CpE053	Fundamentals of Electronic Circuits	3			3	CpE033, CpE031L, co-req CpE051L
CpE121C-L	Software Design Lab		1	3	1	CpE072L, co-req CpE123C
CpE123C	Software Design	3			3	CpE072L, co-req CpE121C-L
GEC023	Mga Babasahin Hinggil sa Kasaysayan ng Pilipinas	3			3	
GEC043	The Contemporary World	3			3	
MATH301L-23	Numerical Methods Lab		1	3	1	MATH223 co-req MATH303
MATH303	Numerical Methods	3			3	MATH223, co-req MATH301L-23
PATHFIT4042	Contemporary Dance	2			2	PATHFIT1002, PATHFIT2022
RELED083	Christian Ethics	3			3	RELED053
RZL023	Buhay at Mga Akda ni Rizal		3		3	
		Total	23	3	9	26

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				Hrs		
THIRD YEAR, First Semester						
CpE151L	Logic Circuits and Design Lab		1	3	1	CpE053, CpE051L, co-req CpE153
CpE153	Logic Circuits and Design	3			3	CpE053, CpE051L, co-req CpE151L
CpE161B-L	Computer Engineering Drafting and Design Lab		1	3	1	CpE053, CpE051L
CpE203B	Operating Systems	3			3	CpE072L
CpE213B	Data and Digital Communications	3			3	CpE053, CpE051L
CpE321L	Introduction to HDL Lab		1	3	1	CpE012L, CpE053, CpE051L
EN233	Feedback and Control Systems	3			3	CpE033, CpE031L, MATH303, MATH301L-23
ENGG223	Fundamentals of Mixed Signals and Sensors	3			3	CpE053, CpE051L
GEC063	Purposive Communication	3			3	
GECELEC1	Living in the IT Era	3			3	
RELED073	Contemporary Issues About Church and Human Society with Immersion	3			3	RELED053
		Total	24	3	9	27
THIRD YEAR, Second Semester						
CpE261B-L	Computer Networks and Security Lab		1	3	1	CpE213B, co-req CpE263B
CpE263B	Computer Networks and Security	3			3	CpE213B, co-req CpE261B-L
CpE331L	Embedded Systems Lab		1	3	1	EN233, co req CpE333
CpE333	Embedded Systems	3			3	EN233, co req CpE331L
CpE342	CpE Laws and Professional Practice	2			2	
CpElec-1	Cognate / Elective Course 1	3			3	CpE123C, CpE121C-L
EN251L	Microprocessors Lab		1	3	1	CpE153, CpE151L, CpE321L, co-req EN253, EN263
EN253	Microprocessors	3			3	CpE153, CpE151L, CpE321L, co-req EN251L, EN263
EN263	Methods of Research	3			3	CpE153, CpE151L, co-req EN253, EN251L
ENGG183	Basic Occupational Health and Safety	3			3	
GECELEC2	The Entrepreneurial Mind	3			3	
		Total	23	3	9	26
FOURTH YEAR, First Semester						
CpE181A-L	Computer Architecture and Organization Lab		1	3	1	EN253, EN251L, co-req CpE183A
CpE183A	Computer Architecture and Organization	3			3	EN253, EN251L, co-req CpE181A-L
CpE251B-L	Digital Signal Processing Lab		1	3	1	EN233, co-req CpE253B
CpE253B	Digital Signal Processing	3			3	EN233, co-req CpE251B-L
CpE271B-L	Seminars and Fieldtrips Lab		1	3	1	CpE342
CpE353	Emerging Technologies in CpE	3			3	CpE342
CpElec-2	Cognate / Elective Course 2	3			3	CpElec-1
CpE-PD1-L	CpE Practice and Design 1		1	3	1	EN263
ENGG193	Technopreneurship	3			3	
GEC053	Art Appreciation	3			3	
GECELEC3	Philippine Popular Culture	3			3	
		Total	21	4	12	25
FOURTH YEAR, Second Semester						
CpElec-3	Cognate / Elective Course 3	3			3	CpElec-2
CpE-PD2-L	CpE Practice and Design 2		2	6	2	CpE-PD1-L
CpE-PRC5	Practicum (500 hrs)*	5			5	CpE253B, CpE251B-L, CpE-PD2-L
		Total	8	2	6	10
GRAND TOTAL		169	25	75	194	

*Practicum - No simultaneous enrollment is allowed.

Professional Elective Courses Tracks

Software Development Track

- Python Programming
- Machine Learning I with Python programming
- Machine Learning II with Python programming

Embedded Systems Track

- Embedded Systems 1 - Software and Hardware
- Embedded Systems 2 - Software and Hardware
- Embedded Systems 3 - Control, Testing and Applications

System and Network Administration Track

- CISCO Networking Module 1
- CISCO Networking Module 2
- CISCO Networking Module 3 and 4