



# LAGUNA UNIVERSITY

Laguna Sports Complex, Brgy. Bubukal, Santa Cruz, Laguna  
Tel. No. (049) 576-4359

**PROGRAM OF STUDY**  
**BACHELOR OF SCIENCE IN COMPUTER SCIENCE**  
**Specialization: Data Science**  
**Effective AY 2023-2024**

FIRST YEAR											
1st semester						2nd semester					
Course Code	Course Title	No. of Hrs/wk		Units	Prerequisite	Course Code	Course Title	No. of Hrs/wk		Units	Prerequisite
		Lec	Lab					Lec	Lab		
GE 1	Understanding the Self	3	0	3	none	GE 5	The Contemporary World	3	0	3	none
GE 2	Readings in Philippine History	3	0	3	none	GE 6	Art Appreciation	3	0	3	none
GE 3	Mathematics in the Modern World	3	0	3	none	GE 7	Science, Technology and Society	3	0	3	none
GE 4	Purposive Communication	3	0	3	none	GE 8	Ethics	3	0	3	none
MST 01	Environmental Science	3	0	3	none	MST 02	Living in the IT Era	3	0	3	none
PE 1 (PATHFit 1)	Movement Competency Training	2	0	[2]	none	PE 2 (PATHFit 2)	Exercise-based Fitness Activities	2	0	[2]	PE 1 (PATHFit 1)
NSTP 1	National Service Training Program 1	3	0	[3]	none	NSTP 2	National Service Training Program 2	3	0	[3]	NSTP 1
CC 1100	Introduction to Computing	2	3	3	none	CC 1202	Computer Programming 2 (Intermediate Programming)	2	3	3	CC 1101
CC 1101	Computer Programming 1 (Fundamentals of Programming)	2	3	3	none	CS 1201	Discrete Structures	3	0	3	CC 1101
Total No. of Units				21 [5]		Total No. of Units				21 [5]	

SECOND YEAR											
1st semester						2nd semester					
Course Code	Course Title	No. of Hrs/wk		Units	Prerequisite	Course Code	Course Title	No. of Hrs/wk		Units	Prerequisite
		Lec	Lab					Lec	Lab		
SSP 04	The Entrepreneurial Mind	3	0	3	none	GEM	Life and Works of Rizal	3	0	3	none
PE 3 (PATHFit 3)	Menu of Dance	2	0	[2]	PE 2 (PATHFit 2)	PE 4 (PATHFit 4)	Sports	2	0	[2]	PE 2 (PATHFit 2)
CC 2103	Data Structures and Algorithms	2	3	3	CC 1202, CS 1201	CS 2206	Database Management System	2	3	3	CC 2104
CC 2104	Information Management	2	3	3	CC 1202	CS 2207	Object-oriented Programming 2 (Java)	2	3	3	CS 2105
CS 2102	Discrete Structures 2	3	0	3	CS 1201	CS 2208	Mathematics for Data Science	2	3	3	GE3, CS 2102, CS 2105
CS 2103	Networks and Communication	2	3	3	CC 1100	CS 2209	Algorithms and Complexity	2	3	3	CC 2103
CS 2104	Introduction to Data Science	2	3	3	CC 1202	CS 2210	Programming 3 (C#)	2	3	3	CC 1202, CC 2103
CS 2105	Object Oriented Programming (Python)	2	3	3	CC 1202	CS 2211	Data Science in Practice	2	3	3	CS 2104
Total No. of Units				21 [2]		Total No. of Units				21 [2]	

THIRD YEAR											
1st semester						2nd semester					
Course Code	Course Title	No. of Hrs/wk		Units	Prerequisite	Course Code	Course Title	No. of Hrs/wk		Units	Prerequisite
		Lec	Lab					Lec	Lab		
CC 3105	Applications Development and Emerging Technologies	2	3	3	3rd Yr Standing	CS 3216	Programming Languages	2	3	3	3rd Yr Standing
CS 3112	Automata Theory and Formal Languages	2	3	3	3rd Yr Standing	CS 3217	Software Engineering 2	3	0	3	3rd Yr Standing
CS 3113	Architecture and Organization	2	3	3	3rd Yr Standing	CS 3218	Social Issues and Professional Practice	3	0	3	3rd Yr Standing
CS 3114	Software Engineering 1	2	3	3	3rd Yr Standing	CS 3219	Introduction to Artificial Intelligence	2	3	3	3rd Yr Standing
CS 3115	Information Assurance and Security	3	0	3	3rd Yr Standing	CS 3220	Operating Systems	2	3	3	3rd Yr Standing
DS-3101	Data Mining and Data Warehousing	2	3	3	3rd Yr Standing	DS-3202	Machine Learning	2	3	3	3rd Yr Standing
Total No. of Units				18		Total No. of Units				18	

Summer					
Course Code	Course Title	No. of Hrs/wk		Units	Prerequisite
		Lec	Lab		
CS 4021	Practicum (300 Hours)	0	3	3	4th Yr Standing
Total No. of Units				3	

**LOUPEL B. GUETA**  
Education Supervisor II  
CHEDRO IV-A

FOURTH YEAR											
1st semester						2nd semester					
Course Code	Course Title	No. of Hrs/wk		Units	Prerequisite	Course Code	Course Title	No. of Hrs/wk		Units	Prerequisite
		Lec	Lab					Lec	Lab		
CS 4122	Human Computer Interaction	2	3	3	4th Yr Standing	CS 4224	CS Thesis 2	3	0	3	4th Yr Standing
CS 4123	CS Thesis 1	3	0	3	4th Yr Standing	DS-4203	Natural Language Processing	2	3	3	4th Yr Standing
Total No. of Units				6		Total No. of Units				6	

**TOTAL NO. OF UNITS 149**