

SAINT COLUMBAN COLLEGE  
Pagadian City  
COLLEGE OF COMPUTER STUDIES

BACHELOR OF SCIENCE IN COMPUTER SCIENCE (BSCS)

Curriculum Effective S.Y. 2022-2023 [Based on CMO No. 25 series of 2015 ]

**Vision:**  
Leading Catholic learning institution and evangelizing community in the pursuit of excellence and commitment to forming persons in communion with God in Jesus Christ, one another, and the rest of creation

**Mission:**  
We, at Saint Columban College, guided by the gospel values of WISDOM, JUSTICE and CHARITY, commit ourselves to develop fully the talents, and capabilities of the students through holistic quality programs, which aim to help them live their faith, attain academic excellence and perform their responsibilities towards God, society and the rest of the

**Goals:**  
To create a climate that will enable the students to cultivate the values of wisdom, justice, and charity.  
To develop students who manifest critical thinking and problem solving skills through scientific investigation.  
To produce technologically skilled graduates who can articulate their thoughts in cohesive and understandable terms.  
To create an atmosphere that deepens the social commitment of students to help improve the quality of life in their community and the environment.

First Year – 1st Semester					
Crs No.	Descriptive Title	Units	Hours		Pre-Requisites
			Lec	Lab	
Rel Ed 111	Intro to Doing Catholic Theology	3	3	0	None
A&H 104	Reading Visual Arts	3	3	0	None
GE 104C	Mathematics in the Modern World	3	3	0	None
GE 105	Art Appreciation	3	3	0	None
ITE 111	Introduction to Computing	3	3	0	None
ITE 112B*	Fundamentals of Programming	3	1	2	None
Orient	Saint Columban Spirituality (Orientation)	1	1	0	None
PathFit 101	Movement Competency Training	2	2	0	None
NSTP 1	ROTC1/CWTS1/LTS1	(3)	(3)	-	None
Total:		24	22	2	

First Year – 2nd Semester					
Crs No.	Descriptive Title	Units	Hours		Pre-Requisites
			Lec	Lab	
Rel Ed 112	Ecclesiology and Sacrament	3	3	0	None
GE 101	Understanding the Self	3	3	0	None
GE 102	Readings in Philippine History	3	3	0	None
MST 104	Living in the IT Era	3	3	0	None
ITE 121B*	Intermediate Programming	3	1	2	ITE 112B*
CS 121	Discrete Structures I	3	3	0	ITE 112B*
CS 111*	Web Design and Programming	3	1	2	ITE 112B*
PathFit 102	Exercise-based Fitness Activities	2	2	0	None
NSTP 2	ROTC2/CWTS2/LTS2	(3)	(3)	-	NSTP 1
Total:		26	22	4	

First Year – Summer					
Crs No.	Descriptive Title	Units	Hours		Pre-Requisites
			Lec	Lab	
CS 131	Discrete Structures 2	3	3	0	CS 121
ITE 132*	Data Structures and Algorithms	3	1	2	ITE 121B*
GE 103	The Contemporary World	3	3	0	None
Total:		9	7	2	

Second Year – 1st Semester					
Crs No.	Descriptive Title	Units	Hours		Pre-Requisites
			Lec	Lab	
Rel Ed 211	Church Teaching (Encyclicals)	3	3	0	None
GE 107	Science, Technology & Society	3	3	0	None
CS 211*	Object-Oriented Programming (OOP)	3	1	2	ITE 121B*
CS 212*	Algorithms and Complexity	3	1	2	ITE 132*
CS 311	Networks and Communications	3	3	0	CS 221*
ITE 212A*	Information Management	3	1	2	ITE 121B*
CS 112*	Web Development	3	1	2	CS 111*
PathFit 103	Physical Activities Towards Health and Fitness 3	2	2	0	None
Total:		23	15	8	

Second Year – 2nd Semester					
Crs No.	Descriptive Title	Units	Hours		Pre-Requisites
			Lec	Lab	
Rel Ed 212	Responsibility & Commitment	3	3	0	None
Math 200	General Calculus	3	3	0	None
CS 221*	Architecture and Organization	3	1	2	ITE 121B*
CS 224	Automata Theory and Formal Languages	3	3	0	ITE 121B*
CS 115*	Embedded Systems	3	1	2	CS 211*
ITE 224*	Application Dev't. & Emerging Technologies	3	1	2	CS 211*
CSPElec-1	CS Professional Elective - 1	3	-	-	None
PathFit 104	Physical Activities Towards Health and Fitness 4	2	2	0	None
Total:		23	14	6	

Second Year – Summer					
Crs No.	Descriptive Title	Units	Hours		Pre-Requisites
			Lec	Lab	
CS 232	Software Engineering 1	3	3	0	CS 211
CS 116*	Neural Networks	3	1	2	CS 211*
CSPElec-2	CS Professional Elective - 2	3	-	-	3rd/4th Year
Total:		9	4	2	

Third Year – 1st Semester					
Crs No.	Descriptive Title	Units	Hours		Pre-Requisites
			Lec	Lab	
GE 106	Purposive Communication	3	3	0	None
CS 222	Operating Systems	3	3	0	CS 211*
CS 321*	Software Engineering 2	3	1	2	CS 232
CS 113*	Office Productivity (with MOS)	3	1	2	None
CS 114*	Mobile Computing	3	1	2	ITE 224*
CSPElec-3	CS Professional Elective - 3	3	-	-	3rd/4th Year
Total:		18	9	6	

Third Year – 2nd Semester					
Crs No.	Descriptive Title	Units	Hours		Pre-Requisites
			Lec	Lab	
Hist 102	Life & Works of Rizal	3	3	0	None
GE 109A	Peace Education, Gender and Development	3	3	0	None
CS 223	Intro. to Human Computer Interaction	3	3	0	CS 111*
CS 312*	Programming Languages	3	1	2	CS 224
CS 322A*	CS Thesis Writing 1	3	1	2	3rd Year
Total:		15	13	2	



Third Year – Summer					
Crs No.	Descriptive Title	Units	Hours		Pre-Requisites
			Lec	Lab	
CS 231	Information Assurance and Security	3	3	0	CS 211*
CS 331	Social Issues and Professional Practices	3	3	0	3rd Year
	(Open Schedule/Thesis 2 Preparation)				
Total:		6	6	0	

Fourth Year – 1st Semester					
Crs No.	Descriptive Title	Units	Hours		Pre-Requisites
			Lec	Lab	
CS 116*	IT Industry Certification Review	3	1	2	4thYr Level
GE 108C	Ethics (for IT Education)	3	3	0	None
SSP 104	The Entrepreneurial Mind	3	3	0	None
CS 411*	CS Thesis Writing 2	3	1	2	4thYr Level
Total:		12	8	4	

Fourth Year – 2nd Semester					
Crs No.	Descriptive Title	Units	Hours		Pre-Requisites
			Lec	Lab	
CS 421	Internship / OJT / Practicum and CS	3	1	162	4thYr Level
	Industry Immersion				
Total:		3	1	162	

Job Entry Level Positions:

- Web and Applications Developer

Database Administrator

Systems Administrator

Network Engineer

Information Security Administrator

IT Instructor

Computer Programmer

Database Developer
- Systems Integration Trainee

IT Audit Assistant

Technical Support Specialist

QA Specialist

Systems Analyst

Data Engineer

Business Intelligence Developer

Junior Data Analyst

CS PROFESSIONAL ELECTIVES: (Select 9 units only)					
Crs No.	Descriptive Title	Units	Hours		Pre-Requisites
			Lec	Lab	
CSP 101*	Computation Science	3	1	2	3rd/4th Year
CSP 102*	Graphics and Visual Computing	3	1	2	3rd/4th Year
CSP 103*	Parallel and Distributed Computing	3	1	2	3rd/4th Year
CSP 104*	Intelligent Systems	3	1	2	3rd/4th Year
CSP 105*	System Fundamentals	3	1	2	3rd/4th Year
CSP 106*	Data Mining and Warehousing	3	1	2	3rd/4th Year
CSP 107*	Game Development	3	1	2	3rd/4th Year
Total:		21	7	14	

For CHEDRO9:

Summary of Units:	
General Education	36
ITE Common Courses	18
ITE Professional Courses	66
ITE Professional Electives	9
Additional Math Requirement	3
Other Mandated Courses	3
PE	8
NSTP	6
Institutional Requirements	19
Total:	168

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CURRICULUM SUMMARY

Curriculum Effective S.Y. 2022-2023 [Based on CMO No. 25 series of 2015 ]  
[Revised No. 04,08-2022]

General Education: (36 units)		
GE 101	Understanding the Self	3
GE 102	Readings in Philippine History	3
GE 103	The Contemporary World	3
GE 104C	Mathematics in the Modern World	3
GE 105	Art Appreciation	3
GE 106	Purposive Communication	3
GE 107	Science, Technology & Society	3
GE 108C	Ethics (for IT Education)	3
A&H 104	Reading Visual Arts	3
MST 104	Living in the IT Era	3
SSP 104	The Entrepreneurial Mind	3
Hist 102	Life & Works of Rizal	3
Total Units:		36

Mandated Courses: (3 units)		
GE 109A	Peace Education, Gender and Development	3
Total Units:		3

Physical Education Courses: (8 units)		
PathFit 101	Movement Competency Training	2
PathFit 102	Exercise-based Fitness Activities	2
PathFit 103	Physical Activities Towards Health and Fitness 3	2
PathFit 104	Physical Activities Towards Health and Fitness 4	2
Total Units:		8

NSTP Courses: (6 units)		
NSTP 1	ROTC1/CWTS1/LTS1	3
NSTP 2	ROTC2/CWTS2/LTS2	3
Total Units:		6

Additional Math Requirement: (3 units)		
Math 200	General Calculus	3
Total Units:		3

Institutional Requirements: (22 units)		
Rel Ed 111	Intro to Doing Catholic Theology	3
Rel Ed 112	Ecclesiology and Sacrament	3
Rel Ed 212	Responsibility & Commitment	3
Rel Ed 211	Church Teaching (Encyclicals)	3
CS 113*	Office Productivity (with MOS)	3
CS 116*	IT Industry Certification Review	3
Orient	Saint Columban Spirituality (Orientation)	1
Total Units:		19

ITE Common Courses: (18 units)		
ITE 111	Introduction to Computing	3
ITE 112B*	Fundamentals of Programming	3
ITE 121B*	Intermediate Programming	3
ITE 132*	Data Structures and Algorithms	3
ITE 212A*	Information Management	3
ITE 224*	Application Dev't. & Emerging Technologies	3
Total Units:		18

CS Professional Courses: (66 units)		
CS 121	Discrete Structures I	3
CS 111*	Web Design and Programming	3
CS 131	Discrete Structures 2	3
CS 211*	Object-Oriented Programming (OOP)	3
CS 212*	Algorithms and Complexity	3
CS 221*	Architecture and Organization	3
CS 112*	Web Development	3
CS 222	Operating Systems	3
CS 224	Automata Theory and Formal Languages	3
CS 115*	Embedded Systems	3
CS 232	Software Engineering 1	3
CS 116*	Neural Networks	3
CS 311	Networks and Communications	3
CS 113*	Office Productivity (with MOS)	3
CS 114*	Mobile Computing	3
CS 223	Intro. to Human Computer Interaction	3
CS 312*	Programming Languages	3
CS 322A*	CS Thesis Writing 1	3
CS 231	Information Assurance and Security	3
CS 331	Social Issues and Professional Practices	3
CS 411*	CS Thesis Writing 2	3
CS 421	Internship / OJT / Practicum and CS	3
Total Units:		66

CS Professional Elective Courses: (9 units)		
CSPElec-1	CS Professional Elective - 1	3
CSPElec-2	CS Professional Elective - 2	3
CSPElec-3	CS Professional Elective - 3	3
Total Units:		9

Grand Total: 168

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