



A CMI INSTITUTION

CHRIST COLLEGE OF ENGINEERING (AUTONOMOUS)

MASTER OF COMPUTER APPLICATIONS

CURRICULUM

2026 REGULATION



A CMI INSTITUTION

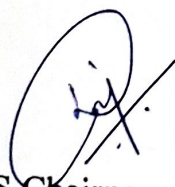
CHRIST COLLEGE OF ENGINEERING (AUTONOMOUS)

MASTER OF COMPUTER APPLICATIONS

2026 REGULATION (SEMESTER 1)

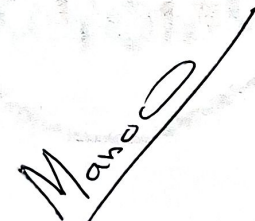
Approved by BoS meeting held on: 20/06/2026

Approved by Academic Council meeting held on: 23/06/2026



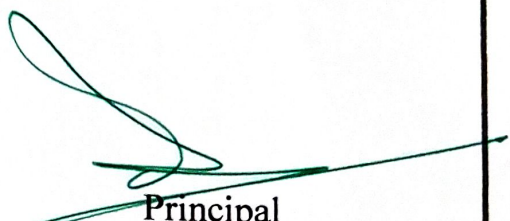
BoS Chairperson

Dr. Dincy R Arikkat



Director of Academics

Dr. Manoj George



Principal

Dr. Soloman P. A.



(College Seal)

Programme Preamble

The Master of Computer Applications (MCA) programme at Christ College of Engineering (Autonomous) is designed to equip students with strong theoretical knowledge and practical skills to meet the evolving demands of the software and IT industry. The curriculum provides a solid foundation through core courses in Operating Systems, Data Structures, Software Engineering, Artificial Intelligence and Machine Learning, Database Systems, Computer Networks, Information Security, and Mobile Application Development. The programme promotes experiential learning through laboratories, projects, internships, seminars, and MOOCs, enabling students to develop technical competence, problem-solving skills, professional ethics, and a commitment to lifelong learning.

Programme Structure

Semester (Credits)	S1	S2	S3	S4	Total	%
Programme Core Courses (PC)	22	18	12	4	56	65.1
Programme Elective Course (PE)	-	4	8	-	12	14
MOOC Course (MC)	-	2	-	-	2	2.3
Seminar (SR)	-	-	-	2	2	2.3
Project/ Internship (PR/IP)	-	-	2	12	14	16.3
Total	22	24	22	18	86	100

Course Distribution by Semester and Type

Sl. No.	Course Type	Number of Courses				
		S1	S2	S3	S4	Total
4	Programme Core Courses (PC)	7	6	4	1	18
5	Programme Elective Course (PE)	-	1	2	-	3
6	MOOC Course (MC)	-	1	-	-	1
8	Seminar (SR)	-	-	-	1	1
9	Project/ Internship (PR/IP)	-	-	1	1	2

Course Code Format Guidelines

Each course in the curriculum shall be identified by a unique ten-character alphanumeric code structured as follows:

1. First and Second Letter - Department Code

Indicates the parent department:

CA – Master of Computer Applications

2. Third and Fourth Letters - Curriculum Scheme Year

Represents the year in which the curriculum scheme was introduced (e.g., 26 for 2026).

3. Fifth and Sixth Letters - Abbreviation of Course Title

Two-letter short form of the course title (e.g., MF for Mathematical Foundations, DS for Data Structures).

4. Seventh Letter - Course Type Indicator

Denotes the nature of the course:

T - Theory

P - Practical

R - Project

5. Eighth Character - Semester Number

Indicates the semester in which the course is offered (e.g., 1 for Semester I).

6. Ninth and Tenth Characters - Course Sequence Number

Represents the order of the course in that semester (e.g., 21 for the 21st course).

- L-T-P-R = Lecture – Tutorial – Practical - Project
- SS (Self Study) Hours = $1.5*L + 0.5*T + 0.5*P + R$
- CAE = Continuous Assessment and Evaluation, and ESE = End Semester Examination

FIRST SEMESTER														
Sl.No	Slot	Course Code	Course Type	Course Category	Course Title (Course Name)	Credit Structure				SS	Total Marks		Credits	Hrs./Week
						L	T	P	R		CAE	ESE		
THEORY														
1	A	CA26MFT101	BS	GC	Mathematical Foundations for Computing	3	1	0	0	5	40	60	4	4
2	B	CA26OST102	PC	PC	Operating Systems	3	1	0	0	5	40	60	4	4
3	C	CA26DST103	PC	PC	Advanced Data Structures	3	1	0	0	5	40	60	4	4
4	D	CA26SET104	PC	PC	Software Engineering and DevOps	3	1	0	0	5	40	60	4	4
PRACTICALS														
5	R	CA26PYP105	PC	PC	Python Programming Lab	0	1	3	0	2	50	50	2	4
6	S	CA26WPP106	PC	PC	Web Programming Lab	0	1	3	0	2	50	50	2	4
7	T	CA26DSP107	PC	PC	Data Structures using C Lab	0	1	3	0	2	50	50	2	4
Total										26			22	28

SECOND SEMESTER														
Sl.No	Slot	Course Code	Course Type	Course Category	Course Title (Course Name)	Credit Structure				SS	Total Marks		Credits	Hrs./Week
						L	T	P	R		CAE	ESE		
THEORY														
1	A	CA26DBT201	PC	PC	Advanced Database Management Systems	3	1	0	0	5	40	60	4	4
2	B	CA26MLT202	PC	PC	Artificial Intelligence with Machine Learning	3	1	0	0	5	40	60	4	4
3	C	CA26OPT203	PC	PC	Object Oriented Programming using Java	3	1	0	0	5	40	60	4	4
4	D	CA26PE12XX	PE	PE	Program Elective I	3	1	0	0	5	40	60	4	4
PRACTICALS														
5	R	CA26OPP205	PC	PC	Object Oriented Programming Lab	0	1	3	0	2	50	50	2	4
6	S	CA26MAP206	PC	PC	Mobile Application Development Lab	0	1	3	0	2	50	50	2	4
7	T	CA26MLP207	PC	PC	Machine Learning Lab	0	1	3	0	2	50	50	2	4
MANDATORY COURSES														
8	J	CA26MCT2XX	MC	M C	MOOC Course	0	0	0	0	2	50	0	2	0
Total										28			24	28

THIRD SEMESTER														
Sl.No	Slot	Course Code	Course Type	Course Category	Course Title (Course Name)	Credit Structure				SS	Total Marks		Credits	Hrs./Week
						L	T	P	R		CAE	ESE		
THEORY														
1	A	CA26CNT301	PC	PC	Advanced Computer Networks	3	1	0	0	5	40	60	4	4
2	B	CA26IST302	PC	PC	Information Security	3	1	0	0	5	40	60	4	4
3	C	CA26PE23XX	PE	PE	Program Elective II	3	1	0	0	5	40	60	4	4
4	D	CA26PE33XX	PE	PE	Program Elective III	3	1	0	0	5	40	60	4	4
PRACTICALS														
5	R	CA26CNP305	PC	PC	Networking & System Administration Lab	0	1	3	0	2	50	50	2	4
6	S	CA26ACP306	PC	PC	Advanced Computing Lab	0	1	3	0	2	50	50	2	4
7	T	CA26MPR307	PR/ IP	PR/ IP	Mini Project	0	0	0	4	4	100	0	2	4
Total										28			22	28
FOURTH SEMESTER														
Sl.No	Slot	Course Code	Course Type	Course Category	Course Title (Course Name)	Credit Structure				S S	Total Marks		Credits	Hrs./Week
						L	T	P	R		CAE	ESE		
THEORY														
1	A	CA26CVT401	PC	PC	Comprehensive Viva	0	0	0	0	0	0	100	4	0
2	B	CA26SRT402	SR	SR	Seminar	0	0	2	0	1	50	0	2	2
PRACTICALS														
3	R	CA26IPR403	PR /IP	PR /IP	Industry Internship/ Project	0	0	0	27	27	70	30	12	27
Total										28			18	29

<i>Students are required to choose one elective from each elective group from Semester II onwards.</i>	
<i>Program Elective I</i>	
CA26PE1214	<i>Statistical Data Analysis</i>
CA26PE1224	<i>Social Network Analysis</i>
CA26PE1234	<i>Cloud Computing</i>
CA26PE1244	<i>Internet of Things</i>
CA26PE1254	<i>Virtualization and Container Technologies</i>
<i>Program Elective II</i>	
CA26PE2313	<i>Deep Learning</i>
CA26PE2323	<i>Big Data Analytics</i>
CA26PE2333	<i>Blockchain Technology</i>
CA26PE2343	<i>Ethical Hacking and Penetration Testing</i>
CA26PE2353	<i>Computer Vision</i>
<i>Program Elective III</i>	
CA26PE3314	<i>Natural Language Processing</i>
CA26PE3324	<i>Cyber Forensics</i>
CA26PE3334	<i>Generative AI</i>
CA26PE3344	<i>Machine Learning Operations</i>
CA26PE3354	<i>Microservices Architecture</i>