



SCHOOL OF SCIENCE STUDIES (SOSS)

BACHELOR OF COMPUTER APPLICATION (BCA)

PROGRAMME STRUCTURE-2023

T: 080-25426977 / 6988 M: 7022007674 F: 080-25427840

E: info@cmr.edu.in www.cmr.edu.in

BCA (G)

I Semester

Course	CMRU Category	CMRU subcategory	UGC Category	School / Dept	Contact Hours/Week	Credit Distribution L-T-P-C
Program Core						
Problem Solving Techniques Using C and Lab	Foundation	Fundamental	Major Core	SOSS	7	3-0-2-5
Database Management Systems and Lab	Foundation	Fundamental	Major Core	SOSS	7	3-0-2-5
Mathematical Foundation for Computer Science	Foundation	Fundamental	Major Core	SOSS	3	3-0-0-3
Common Core						
Hindi-1/ Kannada-1/ English-1	PS	CC	AECC	DCCC	2	2-0-0-2
Oral and Written Communication	PS	CC	AECC	DCCC	2	4-0-0-4
Community Service-I (COS-I) *	CS	-	-	DCCC	(30)	0-0-1-1*
TOTAL						19 + 1*
Audit Course						
Common Core (Non-Credit) - Graduate Requirement:						
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**The Community Service-I (COS-I) of 30 hours has to be carried out in the I Semester. The corresponding I credit and the CIE will be reflected in the VI Semester.*

II Semester

Course	CMRU Category	CMRU Subcategory	UGC Category	School/Dept	Contact Hours/Week	Credit Distribution L-T-P-C
Program Core						
Data Structures using C and Lab	Foundation	Intermediate	Major core	SOSS	7	3-0-2-5
Object Oriented Programming using JAVA and Lab	Foundation	Intermediate	Major core	SOSS	7	3-0-2-5
Statistics	Foundation	Fundamental	Major Core	SOSS	3	3-0-0-3
IDE1	Interdisciplinary	Fundamental	Minor	SOEC/SOM/SOSSH/SOET	3	3-0-0-3
Common Core						
Hindi-2/ Kannada-2/ English-2/ Foreign Lan	PS	CC	AECC	DCCC	2	2-0-0-2
Design Thinking (DTP)	PS	CC	AECC	DCCC		2-0-0-2
Indian Constitution	KSC	CC	AECC	DCCC		2-0-0-2
Community Service-II (COS-II) *	CS	CS	-	DCCC	(30)	0-0-1-1*
TOTAL						22 + 1*
Audit Course						

Advanced Excel with VBA	AC	ACC	-	-	30	2-0-0-2
CCNA certification	AC	ACC	-	-	30	2-0-0-2
Common Core (Non-Credit) - Graduate Requirement: Career Preparedness Courses:						
GPSDR1081: Career Preparedness Program - 1 (Personal Effectiveness + Prepare for Aptitude Tests-I)						-

**The Community Service-II (COS-II) of 30 hours has to be carried out in the II Semester. The corresponding 1 credit and the CIE will be reflected in the VI Semester.*

Internship- I (CIP) of 2 credits to be carried out between II and III Semester break. The corresponding 2 credits will be reflected in the VI Semester.

III Semester

Course	CMRU Category	CMRU Subcategory	UGC Category	School/Dept	Contact Hours/Week	Credit Distribution L-T-P-C
Program Core						
Operating System & Linux Foundation and Lab	Foundation	Fundamental	Major core	SOSS	7	3-0-2-5
Web Technologies and Lab	Foundation	Fundamental	Major core	SOSS	7	3-0-2-5
Optimization Techniques	Foundation	Intermediate	Major Core	SOSS	3	3-0-0-3
IDE2	Interdisciplinary	Fundamental	Minor		3	3-0-0-3
Internship I† (CIP)	Foundation	Internship	CC	SOSS		
Common Core						
Arts & Philosophy: Introduction to Philosophical Thought / Arts & Philosophy: Introduction to the History	KSC	CC	AECC	DCCC	1	1-0-0-1

and Theories of Knowledge Arts & Philosophy: Introduction to Indian Aesthetics Arts & Philosophy: Gender and Society Arts & Philosophy: Philosophy of Money						
Disaster Management	CS	CC	AECC	DCCC	2	2-0-0-2
Community Service-III (COS-III) *	CS	-	-	DCCC	(30)	0-0-1-1*
TOTAL						19 + 1*
Audit Course						
Advanced Excel with VBA	AC	ACC	-	-	30	2-0-0-2
CCNA certification	AC	ACC	-	-	30	2-0-0-2
Common Core (Non-Credit) - Graduate Requirement:						-
Career Preparedness Courses: Career Preparedness Program - 2(Career essentials + Prepare for Aptitude Tests-II)						

† Internship I - Community Internship Program (CIP) credits are reflected in the VI Semester

*The Community Service - III (COS-III) of 30 hours has to be carried out in the III Semester. The corresponding 1 credit and the CIE will be reflected in the VI Semester.

IV Semester

Course	CMRU Category	CMRU Subcategory	UGC Category	School/Dept	Contact Hours/Week	Credit Distribution L-T-P-C
Program Core						
Python Programming and Lab	Foundation	Fundamental	Major core	SOSS	7	3-0-2-5

Software Engineering and Lab	Foundation	Fundamental	Major core	SOSS/ Industry	7	3-0-2-5
Cyber Security	Foundation	Intermediate	Major Core	SOSS	3	3-0-0-3
MOOC			Major core		-	4
IDE3	Interdisciplinary	Fundamental	Minor		3	3-0-0-3
Common Core						
Environment an Sustainability (EAS)	KSC	CC	AECC	DCCC	2	2-0-0-2
Critical Inquiry	KSC	CC	AECC	DCCC		1
TOTAL						23
Audit Course						
Common Core (Non-Credit) - Graduate Requirement:						-
Career Preparedness Courses: Career Preparedness Program - 3(Career effectiveness + Prepare for Aptitude Tests-III)						

Internship - II (SIP) of 4 credits to be carried out between IV and V Semester break. The corresponding 4 credits will be reflected in the VI Semester.

V Semester

Course	CMRU Category	CMRU Subcategory	UGC Category	School/Dept	Contact Hours/Week	Credit Distribution L-T-P-C
Program Core						
Data Communication Networks and Lab	Foundation	Fundamental	Major	SOSS	7	3-0-2-5
Enterprise Programming and Lab	Foundation	Intermediate	Major	SOSS	7	3-0-2-5
Elective 1: Artificial					7	3-0-2-5

Intelligence and Lab / Mobile Application Development and Lab / Internet of Things and Lab	Elective	Advanced	Major	SOSS		
Internship II†† (SIP)	Foundation	Internship	CC	SOSS		
Common Core						
Ethics and values	KSC	CC	AECC	DCCC		2-0-0-2
TOTAL						17
Audit Course						
Common Core (Non-Credit) - Graduate Requirement:						-
Career Preparedness Courses: Career Preparedness Program - 4 (Strategies for Self-management (SSM))						

†† Internship II - Summer Internship Program (SIP) credits are reflected in the VI Semester

VI Semester

Course	CMRU Category	CMRU Subcategory	UGC Category	School/Dept	Contact Hours/Week	Credit Distribution L-T-P-C
Program Core						
Cloud Computing and Lab	Foundation	Advanced	Major core	SOSS/ Industry	7	3-0-2-5
Internship-1 (CIP)	Foundation	Internship	CC		-	0-0-2-2
Internship-2 (SIP)	Foundation	Internship	CC		-	0-0-4-4
Project Work	Capstone Project		Capstone Project		6	0-2-4-6

Community Service-I (COS-I) *	CS	-	-	DCCC	(30)	0-0-1-1
Community Service - II (COS-II) *	CS	-	-	DCCC	(30)	0-0-1-1
Community Service - III (COS-III)*	CS	-	-	DCCC	(30)	0-0-1-1
TOTAL						20

† The credits of Internship I - Community Internship Program (CIP) taken up after the II Semester is reflected in the VI Semester

†† The credits of Internship II - Summer Internship Program (SIP) taken up after the IV Semester is reflected in the VI Semester

* The credit of Community Service - I (COS-I) / Community Service - II (COS-II) / Community Service - III (COS-III) of 30 hours each that was carried out in the I / II and III Semesters respectively is reflected in the VI Semester.

VII Semester

Course	CMRU Category	CMRU Subcategory	UGC Category	School/Dept	Contact Hours/Week	Credit Distribution L-T-P-C
Program Core						
Advanced Java Programming and Lab	Foundation	Advanced	Major	SOSS	7	3-0-2-5
Big Data Analytics and Lab	Foundation	Advanced	Major	SOSS	7	3-0-2-5
Elective: Data Warehousing and Mining / Network Information Security	Elective	Intermediate	Major	SOSS	3	3-0-0-3
Research Methodology and IPR	Foundation	Intermediate	Major	SOSS	2	2-0-0-2
Capstone Project	Capstone Project			SOSS	6	0-2-4-6
TOTAL						21

VIII Semester

Course	CMRU Category	CMRU Subcategory	UGC Category	School/Dept	Contact Hours/Week	Credit Distribution L-T-P-C
Program Core						
Machine Learning using Python and Lab	Foundation	Advanced	Major	SOSS	7	3-0-2-5
Elective: Digital Image Processing and Lab/Distributed and Parallel Computing and Lab	Elective	Advanced	Major	SOSS	7	3-0-2-5
Theory of Computation	Foundation	Advanced	Major	SOSS	3	3-0-0-3
Project Work	Capstone Project		Capstone Project	SOSS	6	0-2-4-6
TOTAL						19