CMR UNIVERSITY

Private University Estd in Karnataka State by Act No. 45 of 2013

BENGALURU

SCHOOL OF ENGINEERING & TECHNOLOGY (SOET)
Programme Structure 2023-27

B.Tech. CE

Course Code	Course	CMRU Category	CMRU Subcategory	AICTE Category	School/ Department	Contact Hours/ Week	Credit Distribution L-T-P-C
Program Core							
4MATH1011	Engineering MathematicsI	Foundation	FC	BSC	BS	4	3-1-0-4
4PHYS1012	Engineering Physics	Foundation	FC	BSC	BS	5	3-0-1-4
4ENEE1012	Fundamentals of Electrical Engineering	Foundation	FC	ESC	ECE	3	3-0-0-3
4CSGC1011	Elements of Computer Engineering	Foundation	FC	ESC	CSE	3	3-0-0-3
4CSPL1112	Programming in C	Foundation	FC	ESC	ME	4	2-0-1-3
Common Core							
CPSHD1013	Design Thinking 1	PS	-	HSMC	DCCC	2	2-0-0-2
CPSHL2051	Technical Communication Principles and Practice	PS	-	HSMC	DCCC	4	4-0-0-4
GCSCD1011	Community Service -I (COS - I)	CPC	-	SDC	SOET	2	0-0-1-1*
TOTAL						**27**	**23 + 1***

Semester (Physics Cycle)

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

II Semester (Physics Cycle)

Course Code	Course	CMRU Category	CMRU Subcategory	AICTE Category	School/ Department	Contact Hours/ Week	Credit Distribution L-T-P-C
Program Core							
4MATH1021	Engineering Mathematics II	Foundation	FC	BSC	BS	4	3-1-0-4
4CHEM1013	Engineering Chemistry	Foundation	FC	BSC	BS	3	1-0-1-2
4ENCE1012	Fundamentals of Electronic Engineering	Foundation	FC	ESC	ME	4	3-1-0-4
4ENCV1071	Engineering Mechanics	Foundation	FC	ESC	CE	3	3-0-0-3
4CSPL1011	Problem solving using Python	Foundation	FC	ESC	CSE	4	2-0-1-3
Common Core							
CPSHD2012	Design Thinking -2	PS	-	HSMC	DCCC	2	2-0-0-2
CPSAL1091/ CPSAL1101/ CPSAL1111/ CPSSF1011/21/31/41	Hin/Kan/Eng/F L French/German/ Korean/Spanish	PS	-	HSMC	DCCC	2	2-0-0-2
GCSCD1021	Community Service -II (COS - II)	CS	-	SDC	SOET	2	0-0-1-1*
TOTAL						**24**	**20 + 1***

GPSDR1081	Personal Effectiveness	PS	-	AECC	DCCC	1	GR

† Internship- I of 3 credits to be carried out between II and III Semester break. The corresponding 3 credits will be reflected in the VIII Semester.

*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 VIII Semester.

Course Code	Course	CMRU Category	CMRU Subcategory	AICTE Category	School/ Department	Contact Hours/ Week	Credit Distribution L-T-P-C
Program Core							
4MATH1011	Engineering Mathematics I	Foundation	FC	BSC	BS	4	3-1-0-4
4CHEM1013	Engineering Chemistry	Foundation	FC	BSC	BS	3	1-0-1-2
4ENCE1012	Fundamentals of Electronic Engineering	Foundation	FC	ESC	ME	4	3-1-0-4
4ENCV1071	Engineering Mechanics	Foundation	FC	ESC	CE	3	3-0-0-3
4CSPL1011	Problem solving using Python	Foundation	FC	ESC	CSE	4	2-0-1-3
Common Core							
CPSHD1011	Design Thinking -1	PS	-	HSMC	DCCC	2	2-0-0-2
CPSAL1091/C PSAL1101/CP SAL1111/ CPSSF1011/21 /31/41	Hin/Kan/Eng/FL French/German/Korean/Spanish	PS	-	HSMC	DCCC	2	2-0-0-2

Course Code	Course	CMRU Category	CMRU Subcategory	AICTE Category	School/ Department	Contact Hours/ Week	Credit Distribution L-T-P-C
GCSCD10 11	Community Service -I (COS - I)	CS	-	SDC	SOET	2	0-0-1-1*
TOTAL						**24**	**20 + 1***

I Semester (Chemistry Cycle)

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

Course Code	Course	CMRU Category	CMRU Subcategory	AICTE Category	School/ Department	Contact Hours/ Week	Credit Distribution L-T-P-C
Program Core							
4MATH10 21	Engineering MathematicsI I	Foundati on	FC	BSC	BS	4	3-1-0-4
4PHYS1012	Engineering Physics	Foundatio n	FC	BSC	BS	5	3-0-1-4
4ENEE1012	Fundamentals of Electrical Engineering	Foundatio n	FC	ESC	ECE	3	3-0-0-3
4CSGC1011	Elements of Computer Engineering	Foundatio n	FC	ESC	CSE	3	3-0-0-3
4CSPL1112	Programming in C	Foundatio n	FC	ESC	ME	4	2-0-1-3

Common Core								
CPSHD2012	Design Thinking 2	PS	-	HSMC	DCCC	2	2-0-0-2	
CPSHL2051	Technical Communication Principles and Practice	PS	-	HSMC	DCCC	4	4-0-0-4	
GCSCD1021	Community Service -II (COS - II)	CPC	-	SDC	DCCC	2	0-0-1-1*	
TOTAL						**27**	**23+ 1***	
GPSDR1081	Personal Effectiveness	PS	-	AECC	DCCC	1	GR	

II Semester (Chemistry Cycle)

† Internship- I of 3 credits to be carried out between II and III Semester break. The corresponding 3 credits will be reflected in the VIII Semester.

*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 VIII Semester.

III Semester

Course Code	Course	CMRU Category	CMRU Subcategory	AICTE Category	School/ Department	Contact Hours/ Week	Credit Distribution L-T-P-C
Program Core							
4MATH2131	Engineering Mathematics-III	Foundation	FC	PCC	BS	4	3-1-0-4
4ENIT4011	Data structures and Applications	Foundation	FC	PCC	CSE	3	3-0-1-4
4CSPL1022	Computer Networks and Circuit Theory	Foundation	FC	PCC	CSE	5	3-0-1-4
4CSPL2011	Digital Systems	Foundation	IC	PCC	CSE	4	2-0-1-3
4ENIT3011	Microprocessor & Computer Architecture	PS	-	ESC	ECE	5	1-0-2-3
4INTS3010	Internship- I*t*	Foundation	-	PCC	CSE	6	0-0-3-3*t*
Common Core							
CKSAM1051	Indian Constitution	KSC	-	MC	DCCC	2	2-0-0-2
CKSAA1033	Introduction to Philosophical Thoughts					1	1-0-0-1
GCSCD1031	Community Service -III (COS - III)*	CS	-	SDC	SOET	2	0-0-1-1*

TOTAL						25	17 + 1*+ 3†

Common Core (Non-Credit) – Graduate Requirement:

GPSDR1091	Personality Development	PS	-	AECC	DCCC	2	GR
GPSBA1082	Prepare for Aptitude Tests 1/4	PS	-	AECC	DCCC	2	GR

Audit Course:

† Internship - I credits are reflected in the VIII 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 VIII Semester.

IV Semester

Course Code	Course	CMRU Category	CMRU Subcategory	AICTE Category	School/ Department	Contact Hours/ Week	Credit Distribution L-T-P-C
Program Core							
4MATH2021	Mathematics IV	Foundation	FC	BSC	BS	4	3-1-0-4
4CSGC2011	Operating Systems	Foundation	IC	PCC	CSE	4	2-0-1-3
4CSGC2021	Digital Electronics & Logic Design	Foundation	IC	PCC	CSE	4	2-0-1-3
4CSGC2031	Computer Organization	Foundation	IC	PCC	CSE	3	3-0-0-3
4CSPL2021	Object Oriented Programming with Java	Foundation	IC	PCC	CSE	5	3-0-1-4
Common Core							
CKSMM1012	Critical Inquiry	PS	-	SDC	DCCC	1	1-0-0-1
GCSCD1041	Community Service – IV (COS – IV) *	CS	-	SDC	SOET	2	0-0-1-1*
TOTAL						**25**	**21 + 1***
Common Core (Non-Credit) –Graduate Requirement: Career Preparedness Courses † + Community Service ††							

GPSBD1211	Branding and Profile Building	PS	-	AECC	DCCC	2	GR
GPSBA1092	Prepare for Aptitude Tests 2/4	PS	-	AECC	DCCC	2	GR
Audit Course:							

† Internship- II of 3 credits to be carried out between IV and V Semester break. The corresponding 3 credits will be reflected in the VIII Semester.

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

Course Code	Course	CMRU Category	CMRU Subcategory	AICTE Category	School/ Department	Contact Hours/ Week	Credit Distribution L-T-P-C
Program Core							
4CSGC2041	User Interface Design	Foundation	IC	PCC	CSE	4	2-0-1-3
4CSGC3131	System Security	Foundation	IC	PCC	CSE	4	2-0-1-3
4ENIT3071	System Software Engineering	Foundation	IC	PCC	CSE	3	3-0-0-3
4CSGC1XX1	Open Elective 1	Elective	IC	OEC	N/A	3	3-0-0-3
4CSGC2XX1	Professional Elective 1	Elective	IC	PEC	CSE	3	3-0-0-3
		Interdisciplinar y Elective1	IDE	OEC		3	3-0-0-3
4INTS3020	Internship-II†	Foundation	Internship	PCC	CSE	6	0-0-3-3†
Common Core							
CKSHM1011	Environment and Sustainability	KSC	-	HSMC	Civil	2	2-0-0-2
TOTAL						**26**	**21 + 3†**

Common Core (Non-Credit) – Graduate Requirement: Career Preparedness Courses † + Community Service ††								
GPSBD1221	Professional Development	PS	-	AECC	DCCC	2	GR
GPSBA1102	Prepare for Aptitude Tests – ¾	PS	-	AECC	DCCC	2	GR

V Semester

Audit Course:

† Internship - II credits are reflected in the VIII Semester

VI Semester

Course Code	Course	CMRU Category	CMRU Subcategory	AICTE Category	School/ Department	Contact Hours/ Week	Credit Distribution L-T-P-C
Program Core							
4CSPL3091	Design Modern Software Engineering	Foundation	IC	PCC	CSE	4	2-0-1-3
4CSPL2053	Embedded Systems and IoT	Foundation	IC	PCC	CSE	4	2-0-1-3
4CSGC2072	Cloud Computing	Foundation	IC	PCC	CSE	3	3-0-0-3
4CSGC1XX2	Open Elective 2	Elective	IC	OEC	N/A	3	3-0-0-3
4CSGC2XX1	Professional Elective 2	Elective	IC	PEC	CSE	3	3-0-0-3
		Interdisciplina ry Elective 2	IDE	OEC		3	3-0-0-3
Common Core							
CCSHS1011	Sociology of Globalization and sustainable development	-	-	-	DCCC	2	2-0-0-2
TOTAL						21	19
Common Core (Non-Credit) – Graduate Requirement:							

GPSDL10 71	Corporate Readiness	PS	-	AECC	DCCC	2	GR

GPSBD111 2	Prepare for Aptitude Tests – 4/4	PS	-	AECC	DCCC	1	GR
Audit Course:							

† Internship- III of 3 credits to be carried out between VI and VII Semester break. The corresponding 3 credits will be reflected in the VIII Semester.

VII Semester

Course Code	Course	CMRU Category	CMRU Subcategory	AICTE Category	School /Department	Contact Hours/ Week	Credit Distribution L-T-P-C
Program Core							
4CSGC3011	Data Waíehousing and Data Mining	Foundation	AC	PCC	CSE	3	3-0-0-3
4CSGC3031	Embedded Computing Systems	Foundation	AC	PCC	CSE	5	3-0-1-4
4CSGC3XX1	Professional Elective 3	Elective	AC	PEC	CSE	3	3-0-0-3
4CSGC3XX1	Professional Elective 4	Elective	AC	PEC	CSE	3	3-0-0-3
CPSHS1021	Business Management for Engineers	PS	-	HSMC	SOM	1	1-0-0-1
		Inter disciplinary Elective 3	IDE	OEC		3	3-0-0-3
4CAPS4010	Capstone Project Phase I	Foundation	Capstone Project Phase I	PROJ	CSE	6	
4INTS4010	Internship- III*†*	Foundation	Internship	PCC	CSE	6	0-0-3-3*†*
Common Core							

CKSHM1021	Ethics & Values	KSC	-	HSMC	DCCC	2	2-0-0-2
TOTAL						**32**	**19** + 3*†*
GPSDL1061	Career Advancement	PS	-	AECC	DCCC	1	GR

Audit Course:

† Internship - III credits are reflected in the VIII Semester.

VIII Semester

Course Code	Course	CMRU Category	CMRU Subcategory	AICTE Category	School/ Department	Contact Hours/ Week	Credit Distribution L-T-P-C
Program Core							
4CAPS4010	Capstone Project Phase II	Foundation	Capstone	PCC	CSE	16	0-0-8-8
4INTS3010	Internship- I†	Foundation	Internship	PCC	CSE	-	0-0-3-3
4INTS3020	Internship- II†	Foundation	Internship	PCC	CSE	-	0-0-3-3
4INTS4010	Internship- III†	Foundation	Internship	PCC	CSE	-	0-0-3-3
GCSCD1011	Community Service - I (COS - I)*	CS	-	SDC	SOET	-	0-0-1-1
GCSCD1021	Community Service - II (COS - II)*	CS	-	SDC	SOET	-	0-0-1-1
GCSCD1031	Community Service - III (COS - III)*	CS	-	SDC	SOET	-	0-0-1-1
GCSCD1041	Community Service - IV (COS - IV)*	CS	-	SDC	SOET	-	0-0-1-1
TOTAL						**16**	**21**
Audit Course:							

† The credits of Internship - I taken up after the II Semester is reflected in the

VIII Semester † The credits of Internship - II taken up after the IV Semester is reflected in the VIII Semester

† The credits of Internship - III taken up after the VI Semester is reflected in the VIII Semester

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