SAGE University, Indore
SAGAR INSTITUTE OF RESEARCH & TECHNOLOGY
Computer Science & Engineering
CHOICE BASED CREDIT SYSTEM
PROGRAM STRUCTURE FOR BATCH 2022 - 2024
Effective from Academic Session: 2022-23

Program: Mtech

Semester: I

Subject wise Distribution of Marks and corresponding Credits

S. No.	Subject Code	Category	Subject Title	Theory(100 Marks) End Sem	Theory(100 Marks) Continuous Internal Evaluation Mid Sem Test (MST)	Theory(100 Marks) Attendance/ Quiz /Assig./Prese ntations	Practical/Studio (50 Marks) End Sem. Exam (ESE)ForPra ctical and Viva	Practical/Studio (50 Marks) Continuous Internal Evaluation Lab Work / WPR	Practical/Studio (50 Marks) Continuous Internal Evaluation Attendance/Assig nment /viva/Lab manual	Total Marks	L	T	P	S (only for design)	M/B	NTCC	Credits	Credits Hours
1	ECSDCAOS001T	DC	Advance Operating System	60	20	20		-	-	100	3	0	0				3	3
2	ECSDCADS001T	DC	Advance Data Structure	60	20	20	-	-	-	100	3	0	0			-	3	3
3	ECSDCADM001T	DC	Advance Database Management System	60	20	20	-	-	-	100	3	0	0			-	3	3
4	To be Offered **	DE	Departmental Elective-I	60	20	20	-	-	-	100	3	0	0			-	3	3
5	To be Offered **	DE	Departmental Elective-II	60	20	20	-	-	-	100	4	0	0			-	4	4
6	ECSDCODS001P	DC	Advance Operating System Lab+Advanced Data Structure Lab	-			30	10	10	50	0	0	2			-	2	4
7	ECSDCADE001P	DC	Advance Data base Management System Lab+ Elective-I Lab	-			30	10	10	50	0	0	2			..	2	4
8	To be Offered $	DSEEC	Departmental Skill Enhancement Elective Course - I	-			30	10	10	50	0	0	2			-	2	4
	Total			300	100	100	90	30	30	650	16		6				22	28

Legends

L= Lecture	1 Hr	1 CR
T= Tutorial	1 Hr	1 CR
P= Practical	2 Hr	1 CR
S= Studio	1 Hr	1.5 CR
NTCC = Non Tecahing Credit Course		
M= MOOC	SWAYAM/NPTEL	Certificate
BM = Blended MOOC	1 Hr	1 CR

NOTE :	GE to be selected from the university list
	WPR is for NTCC
	Assignment / VIVA for NTCC
	Assignment / VIVA / Lab manual for P
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List of Departmental Elective-I

Sub. Code	Sub. Name
ECSDEOOS001T/ ECSDOOOS001P	Object Oriented Software Engineering
ECSDECND001T/ ECSDECND001P	Computer Network & Distributed Computing

$ List of Departmental Skill Enhancement Elective Course - I

Sub code	Sub. Name
ECSDSAJP001P	Advance Java Programming Lab
ECSDSLIP001P	Linux Programming Lab

List of Departmental Elective-II

Sub code	Sub. Name
ECSDENLP001T	Natural Language Processing
ECSDEACM001T	Advance Computational Mathematics

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CHOICE BASED CREDIT SYSTEM
PROGRAM STRUCTURE FOR BATCH 2023 - 2025
Effective from Academic Session: 2023-24

Program: Mtech
Semester: II

Subject wise Distribution of Marks and corresponding Credits

S. No.	Subject Code	Category	Subject Title	Theory(100 Marks) End Sem	Theory Continuous Internal Evaluation Mid Sem Test (MST)	Theory Attendance/ Quiz /Assig./Presentations	Practical End Sem. Exam (ESE) For Practical and Viva	Continuous Internal Evaluation Lab Work / WPR	Continuous Internal Evaluation Attendance/Assignment /viva/Lab manual	Total Marks	L	T	P	S (only for design)	M/B	NTCC	Credits	Credits Hours
1	ECSDCAWT001T	DC	Advance Web Technologies	60	20	20	-	-	-	100	3	0	0	-	-	-	3	3
2	ECSDCSQT001T	DC	Software Quality & Testing	60	20	20	-	-	-	100	3	0	0	-	-	-	3	3
3	ECSGENCS001T	DC	Network and Cyber security	60	20	20				100	4	0	0	-	-	-	4	4
4	To be Offered **	DE	Departmental Elective-I	60	20	20	-	-	-	100	3	0	0	-	-	-	3	3
5	To be Offered **	DE	Departmental Elective-II	60	20	20	-	-	-	100	3	0	0	-	-	-	3	3
6	ECSDCAWT001P	DC	Advance Web Technologies Lab	-	-	-	30	10	10	50	0	0	2	-	-	-	2	2
7	ECSDCSQT001P	DC	Software Quality & Testing Lab	-	-	-	30	10	10	50	0	0	2	-	-	-	2	2
8	To be Offered $	DSEEC	Departmental Skill Enhancement Elective Course - I	-	-	-	30	10	10	50	0	0	2	-	-	-	2	4
			Total	300	100	100	90	30	30	650	16	0	6	-	-	-	22	24

Legends

L= Lecture	1 Hr	1 CR
T= Tutorial	1 Hr	1 CR
P= Practical	2 Hr	1 CR
S= Studio	1 Hr	1.5 CR
NTCC = Non Tecahing Credit Course		
M= MOOC	SWAYAM/NPTEL	Certificate
BM = Blended MOOC	1 Hr	1 CR

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List of Departmental Elective-I

Sub. Code	Sub. Name
ECSDEARI001T	Artificial Intelligence
ECSDEACA001T	Advanced Computer Architecture

** List of Departmental Elective-II

Sub. Code	Sub. Name
ECSDEMWC001T	Mobile and Wireless computing
ECSDEDMW001T	Data Mining & Warehousing

$ List of Departmental Skill Enhancement Elective Course - I

Sub code	Sub. Name
ECSDSPYP001P	Python Programming Lab
ECSDSCLC001P	Cloud Computing Lab

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Program: Mtech
Semester: III

Subject wise Distribution of Marks and corresponding Credits

S. No.	Subject Code	Category	Subject Title	End Sem	Continuous Internal Evaluation Mid Sem Test (MST)	Attendance/ Quiz /Assig./Presentations	End Sem. Exam (ESE)ForPractical and Viva	Lab Work / WPR	Attendance/Assignment /viva/Lab manual	Total Marks	L	T	P	S (only for design)	M/B	NTCC	Credits	Credits Hours
				Theory(100 Marks)			**Practical/Studio (50 Marks)**				**Hours/week**							
								Continuous Internal Evaluation										
1	ECSDCDSC001T	DC	Data Science	60	20	20		-	-	100	4	0	0				4	4
2	ECSDCRMT001T	DC	Research Methodology	60	20	20	-	-	-	100	4	0	0			-	4	4
3	To be Offered *	DE	Departmental Elective-I	60	20	20	-	-	-	100	4	0	0			-	4	4
4	To be Offered **	DE	Departmental Elective-II	60	20	20	-	-	-	100	4	0	0			-	4	4
5	To be Offered $	DSEEC	Departmental Skill Enhancement Elective Course - I	-	-	-	30	10	10	50	0	0	2			-	2	4
6	ECSDPDIS001N	DSEEC	Dissertation Phase -I	-	-	-		40	60	100	-	-	6			-	6	
	Total			240	80	80	30	50	70	550	16		8				24	20

Legends

L= Lecture	1 Hr	1 CR
T= Tutorial	1 Hr	1 CR
P= Practical	2 Hr	1 CR
S= Studio	1 Hr	1.5 CR
NTCC = Non Teaching Credit Course		
M= MOOC	SWAYAM/NPTEL	Certificate
BM = Blended MOOC	1 Hr	1 CR

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	Assignment / VIVA / Lab manual for P
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List of Departmental Elective-I

Sub. Code	Sub. Name
ECSDEMCL001T	Machine Learning
ECSDECGC001T	Cluster & Grid Computing

$ List of Departmental Skill Enhancement Elective Course - I

Sub code	Sub. Name
ECSDSDSC001P	Data Science Lab
ECSDSRPG001P	R Programming Lab

List of Departmental Elective-II

Sub. Code	Sub. Name
ECSDEDIF001T	Digital Forensic
ECSDEEMS001T	Embedded System

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Program: Mtech

Semester: IV

Subject wise Distribution of Marks and corresponding Credits

S. No.	Subject Code	Category	Subject Title	Theory(100 Marks) End Sem	Theory(100 Marks) Continuous Internal Evaluation Mid Sem Test (MST)	Theory(100 Marks) Attendance/ Quiz /Assig./Prese ntations	Practical/Studio (50 Marks) End Sem. Exam (ESE)ForPractical and Viva	Practical/Studio (50 Marks) Continuous Internal Evaluation Lab Work / WPR	Practical/Studio (50 Marks) Continuous Internal Evaluation Attendance/Assignment /viva/Lab manual	Total Marks	L	T	P	S (only for design)	M/B	NTCC	Credits	Credits Hours
1	To be Offered $	DSEEC	Departmental Skill Enhancement Elective Course - I					30	20	50	0	0	4				2	4
2	ECSDPDIS002N		Dissertation Phase -II					40	60	100	0	0	-				15	
		Total						70	80	150			4				17	4

Legends

L= Lecture	1 Hr	1 CR
T= Tutorial	1 Hr	1 CR
P= Practical	2 Hr	1 CR
S= Studio	1 Hr	1.5 CR
NTCC = Non Tecahing Credit Course		
M= MOOC	SWAYAM/NPTEL	Certificate
BM = Blended MOOC	1 Hr	1 CR

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	Assignment / VIVA / Lab manual for P
	MOOCS will get credits by SWAYAM or NPTEL Certificates

$ List of Departmental Skill Enhancement Elective Course	
Sub code	Sub. Name
ECSDSANP001P	Android Programming Lab
ECSDSIOS001P	IOS Lab