

I YEAR B.Tech. (4YDC)
Common To All Branches

2023
Semester - A

S. No.	Subject Category	Subject Code	Subject Name	Hours per Week			Credits		Maximum Marks				
				L	T	P	Th	Pr	Theory		Practical		Total
									Th.	CW	SW	Pr.	
1	BSC	MA 10001	Mathematics - I	3	1	0	4	0	70	30	0	0	100
2	BSC	PH10017	Physics	3	-	-	3	-	70	30	-	-	100
3	ESC	EE10015	Fundamentals of Electrical Engineering	2	1	-	3	0	70	30	0	0	100
4	ESC	CE10013	Fundamentals of Civil Engineering & Applied Mechanics	2	1	-	3	0	70	30	0	0	100
5	ESC	ME10049	Engineering Graphics	2	-	-	2	-	70	30	-	-	100
6	BSC (LC)	PH10151	Applied Physics Lab	-	-	2	-	1	-	-	20	30	50
7	ESC (LC)	EE10152	Electrical Engineering Lab	-	-	2	-	1	-	-	20	30	50
8	ESC (LC)	ME10153	Engineering Graphics Lab	-	-	4	-	2	-	-	40	60	100
9	HSMC	HU10191	Extra /Co curricular Activity	-	-	2	-	1	-	-	50	0	50
10	MC		Induction program & Universal Human Values	2-3 weeks in the beginning of I Year & 1 hour per week during semester									
TOTAL				12	3	10	15	5	350	150	130	120	750

Semester - B

S. No.	Subject Category	Subject Code	Subject Name	Hours per Week			Credits		Maximum Marks				
				L	T	P	Th	Pr	Theory		Practical		Total
									Th.	CW	SW	Pr.	
1	BSC	MA 10501	Mathematics – II	3	1	-	4	-	70	30	0	0	100
2	BSC	CH10516	Chemistry	3	-	-	3	-	70	30	-	-	100
3	HSMC	HU10551	Technical English	2	-	-	2	-	70	30	0	0	100
4	ESC	CO10507	Programming for Problem Solving	2	1	-	3	-	70	30	0	0	100
5	ESC	EC10508	Basic Electronics Engineering	2	-	-	2	-	70	30	0	0	100
6	BSC (LC)	CH10656	Chemistry Lab	-	-	2	-	1	-	-	20	30	50
7	HSMC (LC)	HU10653	Language Lab	-	-	2	-	1	-	-	20	30	50
8	ESC (LC)	CO10654	Computer Programming Lab	-	-	2	-	1	-	-	20	30	50
9	ESC (LC)	IP10655	Manufacturing Practices	-	-	4	-	2	-	-	40	60	100
10	HSMC	HU10691	Extra /Co curricular Activity	-	-	2	-	1	-	-	50	-	50
11	MC		Induction program & Universal Human Values	2-3 weeks in the beginning of I Year & 1 hour per week during semester									
TOTAL				12	2	12	14	6	350	150	150	150	800

Engineering Certificate shall be awarded after acquiring additional 10 credits out of which 6 credits as 2 Months industrial training within five years

SHRI G. S. INSTITUTE OF TECHNOLOGY & SCIENCE, INDORE
II B.TECH.(4YDC) COMPUTER SCIENCE & ENGINEERING

Scheme 2023-24

Semester: III

S.No.	Subject Category	Subject Code	Subject	Hours per Week			Th. Credit	Pr. Credit	Maximum Marks				Total
				L	T	P			Th.	CW	SW	Pr.	
1	BSC	MA24003	Mathematics-III	3	1	-	4	-	70	30	-	-	100
2	PCC	CO24057	Object Oriented Programming Systems	3	1	2	4	1	70	30	40	60	200
3	PCC	CO24009	Computer Architecture	3	-	2	3	1	70	30	40	60	200
4	ESC	EC24004	Microprocessors & Microcontrollers	3	-	2	3	1	70	30	40	60	200
5	HSMC	HU24005	Economics for Engineers	3	-	-	3	-	70	30	-	-	100
6	LC	CO24497	Programming Practices	-	1	2	-	2	-	-	40	60	100
7	ESC/LC	EC24498	Electronics Workshop	-	-	2	-	1	-	-	40	60	100
Total				15	3	10	17	6	350	150	200	300	1000

Semester: IV

S.No.	Subject Category	Subject Code	Subject	Hours per Week			Th. Credit	Pr. Credit	Maximum Marks				Total
				L	T	P			Th.	CW	SW	Pr.	
1	PCC	CO24553	Discrete Structures	3	-	-	3	-	70	30	-	-	100
2	BSC	MA24554	Mathematics-IV	3	1	-	4	-	70	30	-	-	100
3	PCC	CO24507	Data Structures	3	1	2	4	1	70	30	40	60	200
4	PCC	CO24508	Operating Systems	3	-	2	3	1	70	30	40	60	200
5	OEC	EC24509	Digital Communication	3	-	2	3	1	70	30	40	60	200
6	LC	CO24992	Computer Workshop	-	-	2	-	1	-	-	40	60	100
7	LC	CO24991	Design Thinking Lab-I	-	-	2	-	1	-	-	40	60	100
8	HSBC	HU24881	Values, Humanity and Professional Ethics	-	2	-	2	-	-	100	-	-	100
9	MC	HUM2051	Constitution of India*	2	-	-	-	-	-	50	-	-	50
Total				17	4	10	19	5	350	300	200	300	1150

*Non Credit Mandatory Subject

Internship of minimum 2 weeks to be carried out after semester A or semester B but before commencement of III year semester A. Evaluation shall be done in III Year semester A.

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SEMESTER - V

S.No.	Subject Category	Subject Code	Subject	Hours per Week			Th. Credit	Pr. Credit	Maximum Marks				
				L	T	P			Th.	CW	SW	Pr.	Total
1	PCC	CO34002	Theory of Computation	3	1	-	4	-	70	30	-	-	100
2	PCC	CO34005	Data Base Management Systems	3	1	2	4	1	70	30	40	60	200
3	PCC	CO34007	Computer Networks	3	1	2	4	1	70	30	40	60	200
4	PCC	CO34014	Agile Software Methodology	3	-	2	3	1	70	30	40	60	200
5	LC	CO34451	Skill Development Lab.	-	-	2	-	1	-	-	20	30	50
6	LC	CO34452	Design Thinking Lab.- II	-	-	2	-	1	-	-	20	30	50
7	OEC	CO	Open Elective Course - I	3	1	-	4	-	70	30	-	-	100
8	SI	CO34481	Evaluation of Industrial Training/Internship-I	-	-	-	-	2	-	-	100	-	100
9	MC	HUM3401	Essence Of Indian Knowledge Tradition*	2	-	-	-	-	-	50	-	-	50
Total				17	4	10	19	7	350	200	260	240	1050

SEMESTER - VI

S.No.	Subject Category	Subject Code	Subject	Hours per Week			Th. Credit	Pr. Credit	Maximum Marks				
				L	T	P			Th.	CW	SW	Pr.	Total
1	PCC	CO34553	Machine Learning	3	-	2	3	1	70	30	40	60	200
2	PCC	CO34554	Foundation of Information Security	3	-	-	3	-	70	30	-	-	100
3	PCC	CO34563	Design & Analysis of Algorithms	3	-	2	3	1	70	30	40	60	200
4	PEC		Elective-I	3	-	2	3	1	70	30	40	60	200
5	OEC	CO	Open Elective Course - II	2	1	2	3	1	70	30	40	60	200
6	PCC	CO34881	Internet of Things	-	1	2	-	2	-	-	40	60	100
7	PROJ	CO34999	Major Project Planning & Seminar	-	-	4	-	2	-	-	40	60	100
Total				14	2	14	15	8	350	150	240	360	1100

Internship/ Training of Minimum 2 weeks to be carried out after sem V/ sem VI, Evaluation shall be done in fourth year sem A.

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Scheme 2023-24

Open Elective Course - I			Semester V
S.No.	Subject Category	Subject Code	Subject
1	OEC	CO34298	Artificial Intelligence
2		MB34297	Organization Behaviour and Human Resource Management

Elective I			Semester VI
S.No.	Subject Category	Subject Code	Subject
1		CO34601	Data Science and Engineering
2			Compiler Construction
3			Wireless and Mobile Networks
4		CO34602	Object Oriented Software Engineering
5			Computer Graphics
6			Embedded Systems

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Open Elective Course - II			Semester VI
S.No.	Subject Category	Subject Code	Subject
1		CO34702	Android Application Development
2		CO	Open Source Technologies

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SEMESTER - VII

S.No.	Subject Category	Subject Code	Subject	Hours per Week			Th. Credit	Pr. Credit	Maximum Marks				
				L	T	P			Th.	CW	SW	Pr.	Total
1	PEC		Elective-II	3	-	-	3	-	70	30	-	-	100
2	PEC		Elective-III	3	-	2	3	1	70	30	40	60	200
3	PEC		Elective-IV	3	-	-	3	-	70	30	-	-	100
4	LC	CO44402	Product Development & QA Workshop	-	1	2	-	2	-	-	80	120	200
4	LC	CO44401	System Operations Lab	-	-	2	-	1	-	-	40	60	100
5	SI	CO44481	Internship Evaluation-II	-	-	-	-	2	-	-	100	-	100
7		CO44498	Major Project Phase-I (AB group)	-	-	4	-	2	-	-	80	120	200
8		CO44998	Major Project Phase-II (BA group)										
Total			For AB Group	9	1	10	9	8	210	90	340	360	1000
			For BA Group	9	1	10	9	8	210	90	340	360	1000

SEMESTER - VIII

S.No.	Subject Category	Subject Code	Subject	Hours per Week			Th. Credit	Pr. Credit	Maximum Marks				
				L	T	P			Th.	CW	SW	Pr.	Total
1	PEC		Elective-V	2	-	-	2	-	70	30	-	-	100
2	PEC		Elective-VI	2	-	-	2	-	70	30	-	-	100
3	SI	CO44882	Internship Evaluation-III	-	-	-	-	4	-	-	100	-	100
4		CO44998	Major Project Phase-II (AB group)	-	-	4	-	2	-	-	80	120	200
5		CO44498	Major Project Phase-I (BA group)										
Total			For AB Group	4	0	4	4	6	140	60	180	120	500
			For BA Group	4	0	4	4	6	140	60	180	120	500

SHRI G S INSTITUTE OF TECHNOLOGY & SCIENCE, INDORE
IV B.Tech.(4YDC) COMPUTER SCIENCE & ENGINEERING
List of Electives

Elective II			SEMESTER - VII
S.No.	Subject Category	Subject Code	Subject
1		CO ____	Computational Intelligence
2		CO ____	Advanced Data Structures
3		CO44243	Cloud Computing
4		CO ____	Software Architecture
5		CO ____	Multimedia System
6		CO ____	VLSI System Design

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Elective III			SEMESTER - VII
S.No.	Subject Category	Subject Code	Subject
1		CO44251	Deep Learning
2		CO ____	Advanced Algorithms
3		CO44252	Big Data
4		CO ____	Human Computer Interaction
5		CO ____	Real Time Systems
6		CO ____	Software Verification

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Elective IV			SEMESTER - VII
S.No.	Subject Category	Subject Code	Subject
1		CO ____	Reinforcement Learning
2		CO ____	Advanced Databases
3		CO ____	Cyber Security and Forensics
4		CO ____	Web Technologies
5		CO ____	Virtual Reality
6		CO ____	Robotics
7		CO44309	Natural Language Processing
8		CO44310	Software Testing

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SHRI G S INSTITUTE OF TECHNOLOGY & SCIENCE, INDORE**IV B.Tech.(4YDC) COMPUTER SCIENCE & ENGINEERING**

List of Electives

Elective V			SEMESTER - VIII
S.No.	Subject Category	Subject Code	Subject
1		CO ____	Bioinformatics Computing
2		CO ____	High Performance Computing
3		CO ____	Machine Learning for Security
4		CO44608	Game Design
5		CO ____	Digital Signal Processing
6		CO ____	Security in Resource Constrained Environment
7		CO44609	Introduction to Soft Computing
8		CO44610	Advanced Graph Theory

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Elective VI			SEMESTER - VIII
S.No.	Subject Category	Subject Code	Subject
1		CO ____	Advanced Operating Systems
2		CO ____	Network Management & Maintenance
3		CO44706	Software Project Management
4		CO ____	Image Processing and Computer Vision
5		CO44707	Block Chain Technology
6		CO44708	Data Mining
7		CO	User Centric Computing for Human Computer Interaction

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