

Shri G.S. Institute of Technology & Science, Indore
Electronics & Instrumentation Engineering Department
B.Tech (Applicable to 2021-2022 Enrolled Students)

Batch : 2021-2025
Academic Year 2021-22

I Year
Semester - A

S.No.	Subject Category	Subject Code	Subject	Periods per Week*			Th. Credi	Pr. Credi	Maximum Marks				
				L	T	P			Th.	CW	SW	Pr.	Total
1	BSC	MA10001	Mathematics - I	4	1	-	4	-	70	30	-	-	100
2	BSC	PH10006	Physics	4	1	2	4	1	70	30	20	30	150
3	ESC	CE10003	Fundamentals of Civil Engineering & Applied Mechanics	4	-	2	3	1	70	30	20	30	150
4	ESC	ME10149	Engineering Graphics	3	-	4	2	2	70	30	40	60	200
5	ESC	EE10005	Fundamentals of Electrical Engineering	4	-	2	3	1	70	30	20	30	150
6	MC	HU	Induction Program	3 weeks in the beginning of I Year									
TOTAL				19	2	10	16	5	350	150	100	150	750

Semester - B

S.No.	Subject Category	Subject Code	Subject	Periods per			Th. Cred	Pr. Cred	Maximum Marks				
				L	T	P			Th.	CW	SW	Pr.	Total
1	BSC	MA10501	Mathematics – II	4	1	-	4	-	70	30	-	-	100
2	BSC	CH10506	Chemistry	4	1	2	4	1	70	30	20	30	150
3	HSMC	HU10651	Technical English	4	-	2	3	1	70	30	20	30	150
4	ESC	CO10504	Computer Programming	4	-	2	3	1	70	30	20	30	150
5	ESC	ME10652	Fundamentals of Mechanical Engineering	4	-	-	3	-	70	30	-	-	100
6	ESC	IP10581	Manufacturing Practices	-	1	4	-	3	-	-	40	60	100
7	MC	HU	Induction Program	3 weeks in the beginning of I Year									
TOTAL				20	3	10	17	6	350	150	100	150	750

* Mandatory Non credit course. PASS/FAIL status will appear in Marksheet

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II Year/ III Sem

Batch : 2021-2025

Academic Year 2022-23

S.no.	Category	Subject Code	Subject Name	Period/Week			Maximum Marks				Credits		Total Credits	Total Marks
				L	T	P	Theory		Practical		T	P		
							End Sem	CW	End Sem	SW				
1	DC-1	EI27001	Circuit Analysis & Synthesis	3		2	70	30	60	40	3	1	4	200
2	DC-2	EI27002	Fundamentals of Meaurement	3		2	70	30	60	40	3	1	4	200
3	DC-3	EI27003	Electronics Devices & circuits	3		2	70	30	60	40	3	1	4	200
4	BSC-3	MA27014	Mathematics-III	3	1		70	30			4		4	100
5	HU	HU27005	Economics for Engineers	3			70	30			3		3	100
6	MC-1	EIM2002	Environmental Science*	2				50						
7	DLC-1	EI27498	Electronics Workshop			2			60	40		1	1	100
Total				17	1	8	350	200	240	160	16	4	20	950

II Year/ IV Sem

S.no.	Category	Subject Code	Subject Name	Period/Week			Maximum Marks				Credits		Total Credits	Total Marks
				L	T	P	Theory		Practical		T	P		
							End Sem	CW	End Sem	SW				
1	DC-4	EI27501	Analog electronics	3		2	70	30	60	40	3	1	4	200
2	DC-5	EI27551	Sensors & Transducers	3		2	70	30	60	40	3	1	4	200
3	DC-6	EI27562	Digital Electronics	3		2	70	30	60	40	3	1	4	200
4	BSC-4	MA27563	Mathematics-IV	3	1		70	30			4		4	100
5	HU	HU27881	Values, Humanities & professional Ethics		2			100			2		2	100
6	MC-2	HUM2051	Constitution of India*	2				50						50
7	DLC-2	EI27992	Software Workshop			4			60	40		2	2	100
Total				14	3	10	280	270	240	160	15	5	20	950

*Proposed in 27th Academic Council. Non credit mandatory subject

Internship-I To be completed any time during III/IV semester. Its evaluation/credits to be added in Semester V (Minimum 4 Weeks Duration)

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Academic Year 2023-24

III Year/ V Sem

S.no.	Category	Subject Code	Subject Name	Period/Week			Maximum Marks				Credits		Total	Total Marks	
				L	T	P	Theory		Practical		T	P			
							End Sem	CW	End Sem	SW					
1	DC-7	IT37005	Data Structure	3		2	70	30	60	40	3	1	4	200	
2	DC-8	EI37006	Microprocessor Systems	3		2	70	30	60	40	3	1	4	200	
3	DC-9	EE37003	Control Systems	3		2	70	30	60	40	3	1	4	200	
4	DC-10	EC37014	Analog & Digital Communication	3			70	30			3		3	100	
5	PEC		Elective -I	3			70	30			3		3	100	
6	DLC-3	EI37481	Test & Calibration			4			60	40			2	2	100
7	MC-3	HUM3701	Essence of Indian knowledge Tradition	2				50						50	
8	DLC-4	EI37482	Internship Evaluation- I			4				50			2	2	50
Total				17	0	14	350	200	240	210	15	7	22	1000	

III Year/ VI Sem

S.no.	Category	Subject Code	Subject Name	Period/Week			Maximum Marks				Credits		Total	Total Marks	
				L	T	P	Theory		Practical		T	P			
							End Sem	CW	End Sem	SW					
1	DC-11	EI37511	Filter Design & Simulation	3		2	70	30	60	40	3	1	4	200	
2	DC-12	EI37513	High Frequency Engineering	3			70	30			3		3	100	
3	DC-13	EC37512	Digital Signal Processing	3			70	30			3		3	100	
4	DC-14	ME37502	Mechanical Measurements	3		2	70	30	60	40	3	1	4	200	
5	PEC		Elective-II	3		2	70	30	60	40	3	1	4	200	
6	DLC-5	EI37991	Mini Project			4			60	40			2	2	100
Total				15	0	10	350	150	240	160	15	5	20	900	

Internship-II To be completed any time during V/VI semester. Its evaluation/credits to be added in Semester VII(Minimum 4 Weeks Duration)

Elective-I			
1	IP37251	Industrial Engineering & Management	
2	EI37252	Instrument System Design	
3	CO37253	Artificial Intelligence	

Elective-II		
1	EI37701	Microcontroller & Embedded System
2	EI37xxx	Smart Cities & Instrumentation Engineering
3	EI37xxx	Agriculture & Environment Instrumentation

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IV Year/ VII Sem

S.no.	Category	Subject Code	Subject Name	Period/Week			Maximum Marks				Credits		Total	Total Marks
				L	T	P	Theory		Practical		T	P		
							End Sem	CW	End Sem	SW				
1	DC-15	EI47053	Process Instrumentation	3	1	2	70	30	60	40	4	1	5	200
2	DC-16	EE47002	Power Electronics	3		2	70	30	60	40	3	1	4	200
3	DC-17	EI47055	VLSI Design	3		2	70	30	60	40	3	1	4	200
4	PEC		Elective -III	3			70	30			3		3	100
5	PEC		Elective -IV	3			70	30			3		3	100
6	Internship		Internship-II (Evaluation)			4		50				2		50
7	DLC-7	EI47499	Major Project-I(AB Group)			6			60	40		3	3	100
	DLC-8	EI47999	Major Project-II(BA Group)			10			60	40		5	5	100
Total (With AB Group)				15	1	16	350	200	240	160	16	8	24	950
Total (With BA Group)				15	1	20	350	200	240	160	16	10	26	950

IV Year/ VIII Sem

S.no.	Category	Subject Code	Subject Name	Period/Week			Maximum Marks				Credits		Total	Total Marks
				L	T	P	Theory		Practical		T	P		
							End Sem	CW	End Sem	SW				
1	DC-18		Elective-V	3			70	30			3		3	100
2	DC-19		Elective -VI	3			70	30			3		3	100
3	Internship	EI47881	Industrial Training/ Internship (min 6 week/seminar with report)							100		8	8	100
4	DLC-8	EI47999	Major Project-II(AB Group)			10			60	40		5	5	100
5	DLC-7	EI47499	Major Project-I(BA Group)			6			60	40		3	3	100
Total (With AB Group)				6	0	10	140	60	60	140	6	13	19	400
Total (With BA Group)				6	0	6	140	60	60	140	6	11	17	400

Semester VII		
Elective-III		
1	EI47257	Fiber Optics and Photonics
2	XX47201	Data structure
Elective-IV		
1	EI47322	VLSI Technology
2	EI47301	Intelligent Instrumentation

Semester VIII		
Elective-V		
1	BM47613	Medical Instrumentation/NPTEL
2	EI47611	Digital Image Processing
3	EI47612	Computer Network
Elective-VI		
1	EI47776	Automation in Instrumentation/NPTEL
2	EI47701	Data Acquisition Systems