

Shri G.S. Institute of Technology & Science
Scheme of Examination :First Year
Bachelor of Biomedical Engineering

Semester: I

S. No.	Subject Code	Category	Subject Name	Periods /Week			Maximum Marks allotted				Credits		Total Credits
				L	T	P	Theory		Practical		T	P	
							Th.	CW	SW	Pr.			
1	MA 10001	BSC	Mathematics - I	4	1	0	70	30	0	0	4	0	4
2	PH 10006	BSC	Physics	4	0	2	70	30	20	30	3	1	4
3	CE 10003	ESC	Fundamentals of Civil Engineering & Applied Mechanics	4	0	2	70	30	20	30	3	1	4
4	ME 10149	ESC	Engineering Graphics	3	0	4	70	30	40	60	2	2	4
5	EE 10005	ESC	Fundamentals of Electrical Engineering	4	0	2	70	30	20	30	3	1	4
6	CH 10200*	MC	Environmental Science(Audit Only)	-	-	-	-	-	-	-	-	-	-
Total				19	1	10	350	150	100	150	15	5	20

Induction program of 3 week duration.

Semester: II

S. No.	Subject Code	Category	Subject Name	Periods /Week			Maximum Marks allotted				Credits		Total Credits
				L	T	P	Theory		Practical		T	P	
							Th.	CW	SW	Pr.			
1	MA 10501	BSC	Mathematics – II	4	1	0	70	30	0	0	4	0	4
2	CH 10506	BSC	Chemistry	4	0	2	70	30	20	30	3	1	4
3	HU 10651	HSMC	Technical English	4	0	2	70	30	20	30	3	1	4
4	CO 10504	ESC	Computer Programming	4	0	2	70	30	40	60	3	1	4
5	ME 10649	ESC	Fundamentals of Mechanical Engineering	4	0	2	70	30	20	30	3	1	4
6	IP10581	ESC	Manufacturing Practices	0	1	4	0	0	40	60	0	3	3
7	HU10700*	MC	Universal Human Values	-	-	-	-	-	-	-	-	-	-
Total				20	2	12	350	150	140	210	16	7	23

Shri G.S. Institute of Technology & Science
Scheme of Examination 22-23
Bachelor of Biomedical Engineering-Second Year

Semester: III

S. No.	Subject Code	Category	Subject Name	Periods /Week			Maximum Marks Allotted				Credits		Total Credits
				L	T	P	Theory		Practical		T	P	
							Th.	CW	SW	Pr.			
1	MA-29024	BSC	Mathematics III	4	1	-	70	30	-	-	4		4
2	EE- 29011	ESC	Network Analysis	4	-	2	70	30	40	60	3	1	4
3	EI-29017	ESC	Basic Electronics	4	-	2	70	30	40	60	3	1	4
4	BM-29007	PCC	Bioelectricity & Transducers	4	-	2	70	30	40	60	3	1	4
5	BM-29003	PCC	Human Anatomy & Physiology	4	-	2	70	30	40	60	3	1	4
6	EE-29498	LC	Electrical workshop	-	-	2	-	-	40	60	-	1	1
7	HU-29481	HSMC	Values, Humanities and Professional Ethics	-	3	-	-	100	-	-	2	-	2
8	HUM2001	MC	Constitution Of India (Audit Only)	2	-	-	-	50	-	-	-	-	-
Grand Total				20	4	10	350	300	200	300	18	5	23

Semester: IV

S. No.		Category	Subject Name	Periods /Week			Maximum Marks Allotted				Credits		Total Credits
				L	T	P	Theory		Practical		T	P	
							Th.	CW	SW	Pr.			
1	MA-29501	BSC	Mathematics IV	4	1	-	70	30	-	-	4	-	4
2	EC-29509	ESC	Digital Electronics	4	-	2	70	30	40	60	3	1	4
3	BM-29508	PCC	Analog Electronics	4	-	2	70	30	40	60	3	1	4
4	EI-29572	ESC	Fundamentals of Measurement	4	-	2	70	30	40	60	3	1	4
5	EI-29998	LC	Electronic Workshop	-	-	4	-	-	40	60	-	2	2
6	HU-29507	HSMC	Economics for Engineers	4	-	-	70	30	-	-	3	-	3
7	CHM2053	MC	Environmental Science (Audit Only)	2	-	-	-	50	-	-	-	-	-
Grand Total				22	1	10	350	200	160	240	16	5	21

*PEC --> Can be replaced by NPTEL/Moocs/Swayam Course in consultation with mentor

Shri G.S. Institute of Technology & Science
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Bachelor of Biomedical Engineering: Third Year

Semester: V

S. No.	Subject Code	Category	Subject Name	Periods /Week			Maximum Marks Allotted				Credits		Total Credits
				L	T	P	Theory		Practical		T	P	
							Th.	CW	SW	Pr.			
1	IP-39021	HSMC	Industrial Engineering & Management	4	1	-	70	30	-	-	4	-	4
2	BM-39011	PCC	Signals and Systems	4	1	2	70	30	40	60	4	1	5
3	BM-39013	PCC	Biomedical Instrumentation I	4	1	2	70	30	40	60	4	1	5
4	BM-	PEC	Elective-I	4	-	2	70	30	40	60	3	1	4
5	BM-39481	S/I/I	Seminar/Hospital Training/Internship	-	-	4	-	-	100	-	-	2	2
			Total	16	3	10	280	120	220	180	15	5	20

Elective-I: (1) BM-39254 -Programming Tools & Techniques (2) BM-39251-Embedded Systems

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Semester:VI

S. No.	Subject Code	Category	Subject Name	Periods /Week			Maximum Marks allotted				Credits		Total Credits
				L	T	P	Theory		Practical		T	P	
							Th.	CW	SW	Pr.			
1	EE-39508	PCC	Control Systems	4	1	2	70	30	40	60	4	1	5
2	BM-39501	PCC	Biomedical Signal Processing	4	1	2	70	30	40	60	4	1	5
3	BM-39512	PCC	Biomedical Instrumentation II	4	1	2	70	30	40	60	4	1	5
4		PEC	Elective-II	4	-	-	70	30	-	-	3	-	3
5	BM-39952	PROJEC	Minor Project-I	-	-	8	-	-	40	60	-	4	4
			Total	16	3	14	280	120	160	240	15	7	22

Elective-II : (1) BM-39603-Biomedical Statistical Signal Processing (2) EC-39602 Analog & Digital Communication

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**Shri G.S. Institute of Technology & Science
Scheme of Examination 22-23
Bachelor of Biomedical Engineering: Final Year**

Semester-VII													
S. No.	Subject Code	Category	Subject Name	Periods /Week			Maximum Marks allotted				Credits		Total
							Theory		Practical				
				L	T	P	Th.	CW	SW	Pr.	T	P	
1	BM- 49004	PCC	Biomechanics	3	1	2	70	30	40	60	3	1	4
2	BM-49003	PCC	Medical Imaging Systems	4	1	-	70	30	-	-	4	-	4
3	BM- 49005	PCC	Biological Control Systems	4	-	2	70	30	40	60	3	1	4
4	BM-	PEC	Elective-III	3	-	2	70	30	40	60	2	1	3
5	BM-49498	PROJECT	Major Project-I(AB Group)	-	-	8	-	-	40	60	-	4	4
6	BM-49998	PROJECT	Major Project-II (BA Group)	-	-	8	-	-	40	60	-	4	4
7	BM-49482	S/I/I	Summer Industrial Training/Internship/Seminar	-	-	4	-	-	40	60	-	2	2
			Total(AB Group)	14	2	18	280	120	200	300	12	9	21
			Total(BA Group)	14	2	18	280	120	200	300	12	9	21
		Elective-III	1. BM-xxxxx : Artificial Intelligence and Machine Learning for Medical Applications 2. BM-xxxxx :Power Electronics 3. BM-49261 : Hospital Management and Information Systems 4. BM-49204 : Internet of Things for Medical Applications										

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Semester- VIII														
S. No.	Subject Code	Category	Subject Name	Periods /Week			Maximum Marks allotted				Credits		Total	
							Theory		Practical					
				L	T	P	Th.	CW	SW	Pr.	T	P		
1	BM-	PEC	Elective-IV	4	-	-	70	30	-	-	3	-	3	
2	BM-	PEC	Elective-V	4	1	-	70	30	-	-	4	-	4	
3	BM-49883	S/I/I	Industrial Training/Internship/Seminar	-	-	10	-	-	40	60	-	5	5	
4	BM-49998	PROJECT	Major Project-II (AB Group)	-	-	8	-	-	40	60	-	4	4	
5	BM-49498	PROJECT	Major Project-I (BA Group)	-	-	8	-	-	40	60	-	4	4	
			Total(AB GROUP)	8	1	18	140	60	80	120	7	9	16	
			Total(BA GROUP)	8	1	18	140	60	80	120	7	9	16	
		Elective-IV	1. BM-49612 :Rehabilitation Engineering 2. BM-49611 :Hospital Technology Systems 3. BM-xxxxx : Medical Image Processing 4. BM-xxxxx :Design and manufacturing of medical devices				Elective-V	1. BM-49701 :Biomaterials 2. BM-49702 Telemedicine 3. BM-XXXX: Nanosensors						

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