

**Shri G. S. Institute of Technology & Science**  
**Department of Biomedical Engineering**  
**Scheme of Examination M. Tech Biomedical Signal Processing & Instrumentation**  
**P.G. SCHEME as per AICTE model curriculum applicable from batch 2021**

**Semester I (For students from B.E Biomedical Engineering)**

S. No	Code No.	Subject	L	T	P	Th. Credit	Pr. Credit	Maximum Marks				
								Th.	CW	SW	Pr.	Total
1.	BM 75001	Physiology for Engineers	4	-	-	4	-	70	30	-	-	100
2.	BM 75004	Bio-MEMS	4	-	-	4	-	70	30	-	-	100
3.	EE 75505	Reliability	4	-	-	4	-	70	30	-	-	100
4.	BM	Elective I	4	-	-	4	-	70	30	-	-	100
5.	BM	Elective II	4	-	-	4	-	70	30	-	-	100
6.	BM 75453	Lab I- Electronic System Design	-	-	4	-	2	-	-	40	60	100
7.	BM 75454	Lab II-Virtual Instrumentation	-	-	4	-	2	-	-	40	60	100
8.	BM 75500	Comprehensive Viva	-	-	-	-	-	-	-	-	Grade	Grade
	<b>Total</b>		20	00	08	20	04	350	150	80	120	700

Total Credits Sem I-24

**Semester I (For students from B.E in any other branch of engineering)**

S. No	Code No.	Subject	L	T	P	Th. Credit	Pr. Credit	Maximum Marks				
								Th.	CW	SW	Pr.	Total
1.	BM 75001	Physiology for Engineers	4	-	-	4	-	70	30	-	-	100
2.	BM 75002	Biosensors & Instrumentation	4	-	-	4	-	70	30	-	-	100
3.	BM 75003	Medical Imaging Systems	4	-	-	4	-	70	30	-	-	100
4.	BM	Elective I	4	-	-	4	-	70	30	-	-	100
5.	BM	Elective II	4	-	-	4	-	70	30	-	-	100
6.	BM 75453	Lab I- Electronic System Design	-	-	4	-	2	-	-	40	60	100
7.	BM 75454	Lab II-Virtual Instrumentation	-	-	4	-	2	-	-	40	60	100
8.	BM 75500	Comprehensive Viva	-	-	-	-	-	-	-	-	Grade	Grade
	<b>Total</b>		20	00	08	20	04	350	150	80	120	700

Total Credits Sem I-24

**Electives**

S. No	Code No.	Subject	S. No	Code No.	Subject
1.	BM 75201	Adaptive Signal Processing	3.	BM 75203	Neural Networks & Fuzzy Logic
2.	BM 75202	Rehabilitation & Prosthetics	4.	BM 75204	Biomaterials: Design & Applications

<b>S. No</b>	<b>Code No.</b>	<b>Subject</b>	<b>S. No</b>	<b>Code No.</b>	<b>Subject</b>
1.	BM 75301	Adaptive Signal Processing	3.	BM 75303	Neural Networks & Fuzzy Logic
2.	BM 75302	Rehabilitation & Prosthetics	4.	BM 75304	Biomaterials: Design & Applications

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**Semester II**

S. No	Subject code	Subject	L	T	P	Th. Credit	Pr. Credit	Maximum Marks				
								Th.	CW	SW	Pr.	Total
1.	BM 75501	Bio Statistics	4	-	-	4	-	70	30	-	-	100
2.	BM 75502	Embedded Systems	4	-	-	4	-	70	30	-	-	100
3.	MA 75503	Applied & Computational Linear Algebra	4	-	-	4	-	70	30	-	-	100
4.		Elective I	4	-	-	4	--	70	30	-	-	100
5.		Elective II	4	-	-	4	-	70	30	-	-	100
6.	BM 75853	Lab I- Finite Element Method	-	-	4	-	2	-	-	40	60	100
7.	BM 75854	Lab II-Modeling & Simulation	-	-	4	-	2	-	-	40	60	100
8.	BM 75881	Seminar	--	-	4	-	2	-	-	100	-	100
9..	BM 75900	Comprehensive Viva	-	-	-	-	-	-	-	-	Grade	Grade
		Total	20	00	12	20	06	350	150	180	120	800

Total Credits Sem III-26

S. No	Subject	Elective semester II

	Code		
1.	BM 75701	Advanced Signal Processing	<b>Students can choose any two subjects from this pool</b>
2.	BM 75702	Advanced Biomechanics	
3.	BM 75703	Computer vision and image processing	
4.	BM 75704	Mechatronics	

S. No	Subject Code	Elective semester II	
1.	BM 75751	Advanced Signal Processing	
2.	BM 75752	Advanced Biomechanics	
3.	BM 75753	Computer vision and image processing	
4.	BM 75754	Mechatronics	

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**Semester III**

S. No	Subject code	Subject	L	T	P	Th. Credit	Pr. Credit	Maximum Marks				
								Th.	CW	SW	PR	Total
1	BM 75932	<b>Dissertation Phase - I</b>	0	0	28	0	14			80	120	200
		<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>28</b>	<b>0</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>80</b>	<b>120</b>	200

Total Credits Sem III-16

\* This course can be studied online with prior permission of HOD, however, end semester examination will be conducted in the Institute.

**Semester IV**

Sub. Code	Subject	L	T	P	Th. Credit	Pr. Credit	Maximum Marks				
							TH	CW	SW	Pr.	Total
BM 75952	<b>Dissertation Phase - II</b>			32		16			80	120	200
	<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>32</b>	<b>0</b>	<b>16</b>	<b>0</b>	<b>0</b>	<b>80</b>	<b>120</b>	200

Total Credits Sem IV-16