

**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**

**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 Code	Elective semester II	
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	<b>Students can choose any two subjects from this pool</b>
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	30	0	15			80	120	200
		<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>30</b>	<b>0</b>	<b>15</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