

**NEW COURSE-SCHEME  
B. TECH. (BIOMEDICAL ENGINEERING) WITH  
IMPLEMENTATION OF CREDIT SYSTEM  
(4- YEAR DEGREE COURSE)  
W.E.F. SESSION 2006-07**

**GURU JAMBHESHWAR UNIVERSITY OF SCIENCE AND TECHNOLOGY,  
HISAR – 125001**

NEW COURSE-SCHEME  
B. TECH BIOMEDICAL ENGINEERING WITH  
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GURU JAMBHESHWAR UNIVERSITY OF SCIENCE AND TECHNOLOGY,  
HISAR

I SEMESTER

Scheme for B. Tech, Biomedical Engineering Programme

Course No	Course Title	L	T	P	Total Credits
MATH-101-E	Mathematics-I	3	2	-	4.0
PHY-101-E	Physics-I	3	1	-	3.5
ME-101-E	Elements of Mechanical Engineering	3	1	-	3.5
CSE-101-E	Fundamentals of Computer & Programming in C	3	1	-	3.5
CYL-101	Chemistry-I	3	1	-	3.5
BME-101	Anatomy & Physiology-I	3	2	-	4.0
PHY-103-E	Physics-I Lab	-	-	2	1.0
ME-107-E	Workshop Practice	-	-	4	2.0
CYP-103	Chemistry-I Lab	-	-	2	1.0
CSE-103-E	C Programming Lab	-	-	2	1.0
BME-103	Anatomy & Physiology-I Lab	-	-	2	1.0
	Total	18	8	12	28

L = Lecture, T = Tutorial, P = Practical

**GURU JAMBHESHWAR UNIVERSITY OF SCIENCE AND TECHNOLOGY,  
HISAR  
II SEMESTER**

**Scheme for B. Tech, Biomedical Engineering Programme**

Course No	Course Title	L	T	P	Total Credits
HUM-102-E	Communication skill in English	3	1	-	3.5
MATH-102-E	Mathematics-II	3	2	-	4.0
PHY-102-E	Physics-II	3	1	-	3.5
CYL-201	Chemistry-II	3	1	-	3.5
BME-104	Anatomy & Physiology-II	3	2	-	4.0
EE-101-E	Electrical Technology	3	1	-	3.5
PHY-104-E	Physics-II Lab	-	-	2	1.0
CYP-203	Chemistry-II Lab	-	-	2	1.0
ME-105-E	Engineering Graphic & Drawing	1	-	4	3.0
BME-108	Anatomy & Physiology-II Lab	-	-	2	1.0
EE-103-E	Electrical Technology Lab	-	-	2	1.0
	Total	19	8	12	29

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HISAR  
III SEMESTER  
Scheme for B. Tech, Biomedical Engineering Programme

Course No	Course Title	L	T	P	Total
MATH-201-E	Mathematics-III	3	2	-	4.0
BME-201	Histology	3	1	-	3.5
BME-203	Electronic Devices And Components	3	1	-	3.5
BME-205	Analog Electronics-I	3	1	-	3.5
BME-207	Biochemistry	3	1	-	3.5
BME-209	Signals & Systems	3	1	-	3.5
BME-211	Histology Lab	-	-	2	1.0
BME-213	Analog Electronics-I Lab	-	-	3	1.5
BME-215	Biochemistry Lab	-	-	2	1.0
	Total	18	7	7	25.0

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IV SEMESTER  
Scheme for B. Tech, Biomedical Engineering Programme

Course No	Course Title	L	T	P	Total
BME-202	Biomedical Instrumentation-I	3	1	-	3.5
BME-204	Transducers & Sensors	3	2	-	4.0
BME-206	Digital Circuits and Systems	3	1	-	3.5
BME-208	Analog Electronics-II	3	1	-	3.5
Math-202-E	Numerical Methods	3	1	-	3.5
BME-212	Biomedical Instrumentation-I lab	-	-	3	1.5
BME-214	Transducers & Sensors Lab	-	-	3	1.5
BME- 216	Digital Circuits & Systems Lab	-	-	3	1.5
BME-218	Analog Electronics-II Lab	-	-	3	1.5
Math-204-E	Numerical Methods Lab	-	-	2	1.0
	Total	15	6	14	25.0

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GURU JAMBHESHWAR UNIVERSITY OF SCIENCE AND TECHNOLOGY,

**HISAR**  
**V SEMESTER**  
**Scheme for B. Tech, Biomedical Engineering Programme**

Course No	Course Title	L	T	P	Total
BME-301	Biomedical Instrumentation-II	3	1	-	3.5
BME-303	Clinical Sciences-I	3	1	-	3.5
BME-305	Medical Imaging Technology-I.	3	1	-	3.5
BME-307-ECE	Communication Engg.	3	1	-	3.5
BME-309-ECE	Fields & Waves	3	1	-	3.5
BME-311	Control System in Medicine	3	1	-	3.5
BME-313	Biomedical Instrumentations –II Lab	-	-	2	1.0
BME-315	Clinical Sciences-I Lab	-	-	2	1.0
BME-317	Medical Imaging Technology Lab	-	-	2	1.0
BME-319-ECE	Communication Engg. Lab	-	-	2	1.0
	Total	18	6	8	25.0

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HISAR  
VI SEMESTER  
Scheme for B. Tech, Biomedical Engineering Programme

Course No	Course Title	L	T	P	Total
BME-302	Medical Devices	3	1	-	3.5
BME-204	Clinical Sciences-II	3	1	-	3.5
BME-306	Microprocessor	3	1	-	3.5
BME-308	Biomaterials & Components	3	1	-	3.5
BME-310	Biomechanics	3	1	-	3.5
BME-312	Rehabilitation Engg	3	1	-	3.5
BME-314	Medical Devices Lab	-	-	2	1.0
BME-318	Clinical Sciences-II Lab	-	-	2	1.0
BME-316	Microprocessor Lab	-	-	2	1.0
BME-320	Biomechanics Lab	-	-	2	1.0
	Total	18	6	8	25.0

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HISAR**

**VII SEMESTER  
Scheme for B. Tech, Biomedical Engineering Programme**

Course No	Course Title	L	T	P	Total
BME-401	Biomedical Signal Processing	3	1	-	3.5
BME-403	Medical Imaging & Image Processing	3	1	-	3.5
BME-405	Medical Imaging Tech	3	-	-	3.0
BME-407	Laser & Fiber Optics in Medicine	3	-	-	3.0
BME-	Electives*	3	1	-	3.5
BME-409	Bio-Signal Conditioning	3	1	-	3.5
BME-411	Biomedical Signal Processing Lab	-	-	2	1.0
BME-413	Laser & Fiber Optics Lab	-	-	2	1.0
BME-415	Bio-Signal Conditioning Lab	-	-	2	1.0
BME-417	Minor Project	-	-	4	2.0
	<b>Total</b>	<b>18</b>	<b>4</b>	<b>10</b>	<b>25.0</b>

\*= Electives:

1. BME-501      Nanotechnology in Medicine
2. BME-502      Hospital Management
3. BME-503      Nuclear Medicine



GURU JAMBHESHWAR UNIVERSITY OF SCIENCE AND TECHNOLOGY,  
HISAR  
VIII SEMESTER  
Scheme for B. Tech. Biomedical Engineering Programme

**16 weeks Industrial/Professional training programme in Manufacturing Industries/Hospital/ R & D Organizations**

<b>Credits Distribution:</b>	<b>Credits</b>
<b>1. Regular assessment &amp; Seminar</b>	<b>= 5.0</b>
<b>2 Training Report evaluation</b>	<b>= 5.0</b>
<b>3. Viva Voice</b>	<b>= 8.0</b>
<b>(One internal examiner and two external examiners)</b>	
<b>Total</b>	<b>= 18.0</b>

PROPOSED NEW COURSE-SCHEME  
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## **Grand Total of Credits for the B. Tech Biomedical Engineering, GJUS&T, Hisar.**

<b>Semester-I</b>	<b>:</b>	<b>28.0</b>
<b>Semester-II</b>	<b>:</b>	<b>29.0</b>
<b>Semester-III</b>	<b>:</b>	<b>25.0</b>
<b>Semester-IV</b>	<b>:</b>	<b>25.0</b>
<b>Semester-V</b>	<b>:</b>	<b>25.0</b>
<b>Semester-VI</b>	<b>:</b>	<b>25.0</b>
<b>Semester-VII</b>	<b>:</b>	<b>25.0</b>
<b>Semester-VIII</b>	<b>:</b>	<b>18.0</b>
<b>Total</b>	<b>:</b>	<b>200.0</b>