

### B Tech in Biomedical Engineering

Year	THIRD SEMESTER						FOURTH SEMESTER						
	Sub. Code	Subject Name	L	T	P	C	Sub. Code	Subject Name	L	T	P	C	
<b>II</b>	MAT 2152	Engineering Mathematics – III	2	1	0	3	MAT 2253	Engineering Mathematics – IV	2	1	0	3	
	BME 2151	Analog Electronics	3	1	0	4	BME 2251	Biomechanics	4	0	0	4	
	BME 2152	Anatomy & Physiology	4	0	0	4	BME 2252	Biomedical Instrumentation – I	3	0	0	3	
	BME 2153	Digital Electronics	2	1	0	3	BME 2253	Digital System Design	4	0	0	4	
	BME 2154	Network Analysis	3	1	0	4	BME 2254	Integrated Circuit Systems	4	0	0	4	
	BME 2155	Signals & Systems	3	0	0	3	****	Open Elective – I				3	
	BME 2161	Circuit Simulation Lab	0	0	3	1	BME 2261	IC Systems Lab	0	0	6	2	
	BME 2162	Electronics Lab	0	0	6	2	BME 2262	MATLAB & Simulink	0	0	3	1	
			<b>17</b>	<b>4</b>	<b>9</b>	<b>24</b>				<b>17</b>	<b>1</b>	<b>9</b>	<b>24</b>
<b>Total Contact Hours (L + T + P)</b>			<b>30</b>			<b>Total Contact Hours (L + T + P) + OE</b>			<b>27 + 3 = 30</b>				
<b>III</b>	FIFTH SEMESTER						SIXTH SEMESTER						
	HUM 3051	Engg Economics and Financial Management	2	1	0	3	HUM 3052	Essentials of Management	2	1	0	3	
	BME 3151	Basic Clinical Science I	4	0	0	4	BME 3251	Basic Clinical Sciences II	4	0	0	4	
	BME 3152	Biomedical Instrumentation – II	3	0	0	3	BME 3252	Digital Image Processing	4	0	0	4	
	BME 3153	Digital Signal processing	3	1	0	4	BME ****	Program Elective – I	3	0	0	3	
	BME 3154	Microcontroller Based Systems	4	0	0	4	BME ****	Program Elective – II	3	0	0	3	
	****	Open Elective – II				3	****	Open Elective – III				3	
	BME 3161	Biomedical Instrumentation Lab – 1	0	0	3	1	BME 3261	Biomedical Instrumentation Lab – 2	0	0	3	1	
BME 3162	Microcontroller Lab	0	0	6	2	BME 3262	Signal and Image Processing Lab	0	0	6	2		
			<b>16</b>	<b>2</b>	<b>9</b>	<b>24</b>				<b>16</b>	<b>1</b>	<b>9</b>	<b>23</b>
<b>Total Contact Hours (L + T + P) + OE</b>			<b>27 + 3 = 30</b>			<b>Total Contact Hours (L + T + P) + OE</b>			<b>26 + 3 = 29</b>				
<b>IV</b>	SEVENTH SEMESTER						EIGHTH SEMESTER						
	BME ****	Program Elective – III	3	0	0	3	BME 4298	Industrial Training				1	
	BME ****	Program Elective – IV	3	0	0	3	BME 4299	Project Work/Practice School				12	
	BME ****	Program Elective – V	3	0	0	3							
	BME ****	Program Elective – VI	3	0	0	3							
	BME ****	Program Elective – VII	3	0	0	3							
****	Open Elective – IV				3								
			<b>15</b>	<b>0</b>	<b>0</b>	<b>18</b>							<b>13</b>
<b>Total Contact Hours (L + T + P) +OE</b>			<b>15 + 3 = 18</b>										

<b>Minor Specialization</b>		<b>Other Electives</b>
<p><b>I. Biomaterials</b></p> <p>BME 4051: Biomaterials</p> <p>BME 4052: Biomaterial-characterization techniques</p> <p>BME 4053: Introduction to Biomedical Nanotechnology</p> <p>BME 4054: Material Science for Biomedical Engineers</p> <p><b>II. Signal &amp; Image Processing</b></p> <p>BME 4055: Advanced Biomedical Signal Processing</p> <p>BME 4056: Biometrics</p> <p>BME 4057: Machine Learning</p> <p>BME 4058: Medical Imaging</p>	<p><b>III. Business Management</b></p> <p>HUM 4051: Financial Management</p> <p>HUM 4052: Human Resource Management</p> <p>HUM 4053: Marketing Management</p> <p>HUM 4054: Operation Management</p> <p><b>IV. Computational Mathematics</b></p> <p>MAT 4051: Applied Statistics and Time Series Analysis</p> <p>MAT 4052: Computational Linear Algebra</p> <p>MAT 4053: Computational Probability and Design of Experiments</p> <p>MAT 4054: Graphs and Matrices</p>	<p>BME 4059: Artificial Neural Networks</p> <p>BME 4060: Biophotonics</p> <p>BME 4061: Bio-statistics</p> <p>BME 4062: Control Systems</p> <p>BME 4063: Drug Delivery</p> <p>BME 4064: Embedded Systems</p> <p>BME 4065: Fuzzy Logic Systems</p> <p>BME 4066: Gait Analysis</p> <p>BME 4067: Object Oriented Programming</p> <p>BME 4068: Pattern Recognition</p> <p>BME 4069: Physiological Control Systems</p> <p>BME 4070: Telemedicine</p> <p>BME 4071: Tissue Engineering</p> <p><b>Open Electives</b></p> <p>BME 4301: Bio-medical Instrumentation</p> <p>BME 4302: Bio-Mechanics</p> <p>BME 4303: Rehabilitation Engineering</p>