

## AM2 - M. Tech in Biomedical Engineering

Sl. No	Course No	Course Name	L	T	E	P	O	C
<b>Semester I</b>								
1	AM5119	Core 1: Physiology for Engineers	3	0	0	0	6	9
2	AM5010	Core 2: Biomechanics	3	0	0	0	6	9
3	AM5XXX	Core 3: (from basket of core courses)	3	0	0	0	6	9
4	DPE1	Elective 1 (DPE list / core basket)	3	0	0	0	6	9
5	DPE2	Elective 2 (DPE list/ core basket)	3	0	0	0	6	9
6	AM5XXX	Physiological measurements and Instrumentation Laboratory	0	0	0	3	2	5
<b>Total Credits :</b>			<b>15</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>32</b>	<b>50</b>
<b>Semester II</b>								
1	AM 5160	Core 4: Biomedical Imaging Systems	3	0	0	0	6	9
2	AM 5140	Core 5: Biomedical Instrumentation	3	0	0	0	6	9
3	AM 5XXX	Core 6: (From basket of core courses)	3	0	0	0	6	9
4	DPE3	Elective 3 (DPE list / core basket)	3	0	0	0	6	9
5	FE1	Elective 4 (FE)	3	0	0	0	6	9
6	AM 5XXX	Advanced BME lab	0	0	0	3	2	5
7	AM 5XXX	Modelling and simulation lab	0	0	0	3	2	5
<b>Total Credits :</b>			<b>15</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>34</b>	<b>55</b>
<b>Semester III</b>								
1	AM5420#	Project-I (Summer) / Summer internship	0	0	0	0	15	15
2	FE2	Elective 5 (FE)	3	0	0	0	6	9
3	AM5480	Seminar	0	0	0	0	3	3
4	AM5420*	Project II	0	0	0	0	30	30
<b>Total Credits :</b>			<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>54</b>	<b>57</b>
<b>Semester IV</b>								
1	AM5420	Project III	0	0	0	0	40	40
<b>Total Credits :</b>								<b>40</b>
<b>TOTAL CREDITS</b>								<b>202</b>

Sl. No	Course No	Basket of core courses	L	T	E	P	O	C
1	AM5520	Medical Electronics	3	0	0	0	6	9
2	AM5510	Biomedical Signals and Systems	3	0	0	0	6	9
3	AM5050	Biomedical sensors and measurements	3	0	0	0	6	9
4	AM5XXX	Statistics for biomedical engineers	3	0	0	0	6	9
5	MM5040	Medical materials	3	0	0	0	6	9
6	AM5120	Biomaterials	3	0	0	0	6	9
7	AM 5130	Quantitative Physiology	3	0	0	0	6	9
8	AM5XXX	Numerical methods in Biomedical Engineering	3	0	0	0	6	9
		<b>Basket of elective courses (DPE list)</b>						
1	AM5190	Haptics and Biomedical Engineering	3	0	0	0	6	9
2	AM5100	Biomedical laser instrumentation	3	0	0	0	6	9
3	AM6514	Biomedical sensors	3	0	0	0	6	9
4	AM6516	Neuromechanics of human movement	0	0	0	3	2	5
5	AM7010	Classics in neuromechanics	3	0	0	0	6	9
6	AM6190	Cellular structures and mechanics	3	0	0	0	6	9
7	AM6518	Biophysical aspects of tumor microenvironment	3	0	0	0	6	9
8	AM5013	Operating theatre instrumentation and surgical technology	3	0	0	0	6	9
9	AM5011	Virtual Reality Engineering	3	0	0	0	6	9
10	AM4010	Biomedical signal processing	3	0	0	0	6	9
11	AM5060	Psychophysics	3	0	0	0	6	9
12	AM5020	Biomedical ultrasonics	3	0	0	0	6	9
13	AM6110	Bio fluid mechanics	3	0	0	0	6	9

#, \*Project grade assigned in 4th semester

- New courses are highlighted
- Electives from above list or any relevant courses from other Departments could be chosen in consultation with Faculty Advisor