



**JSS MAHAVIDYAPEETA**  
**JSS Science and Technology University**  
**Sri Jayachamarajendra College of Engineering, Mysuru – 570 006**  
**DEPARTMENT OF BIOTECHNOLOGY, SCHEME OF TEACHING**  
**I Semester M. Tech. – Biotechnology**

Sub code	Name of the subject	Teaching Department	Credits				Contact hours	Marks			Exam duration in hrs
			L	T	P	Total		CIE	SEE	Total	
BTM 110	Frontiers in Biotechnology	Biotechnology	5	-	-	5	5	50	50	100	03
BTM 120	Engineering Principles of Biotechnology	Biotechnology	4	1	-	5	6	50	50	100	03
BTM 130	Structure and Functions of Biomolecules	Biotechnology	5	-	-	5	5	50	50	100	03
BTM 140	Immunology and Infection Biology	Biotechnology	5	-	-	5	5	50	50	100	03
BTM 150	Bioprocess Optimization and Control	Biotechnology	4	-	1	5	6	50	50	100	03
BTM160L	Microbiology and Molecular Techniques	Biotechnology	-	-	1.5	1.5	3	50	-	50	-
BTM170	Seminar	Biotechnology	-	-	1.5	1.5	3	50	-	50	-
			<b>Total Credits</b>				<b>28</b>	<b>33</b>	<b>Total Marks</b>		<b>600</b>



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**II Semester M. Tech. – Biotechnology**

Sub code	Name of the subject	Teaching Department	Credits				Contact hours	Marks			Exam duration in hrs
			L	T	P	Total		CIE	SEE	Total	
BTM 210	Molecular Cell Biology and Genetic Engineering	Biotechnology	5	-	-	5	5	50	50	100	03
BTM 220	Molecular Diagnostic and Therapeutic Biotechnology	Biotechnology	4		1	5	6	50	50	100	03
BTM 230	Process Modeling and Simulation	Biotechnology	5	-	-	5	5	50	50	100	03
BTM 24X	Elective-1	Biotechnology	5	-	-	5	5	50	50	100	03
BTM 25X	Elective-2	Biotechnology	5	-	-	5	6	50	50	100	03
BTM260L	Principles of Bioengineering Lab	Biotechnology	-	-	1.5	1.5	3	50	-	50	-
BTM270	Seminar	Biotechnology	-	-	1.5	1.5	3	50	-	50	-
			<b>Total Credits</b>				<b>28</b>	<b>33</b>	<b>Total Marks</b>		<b>600</b>

**ELECTIVES**

Sl. No	Subject Code	Subject	Sl. No	Subject Code	Subject
1	BTM241	Biomaterials and Surface Biotechnology	1	BTM251	Human Molecular Genetics and Cancer
2	BTM242	Process Validation and Engineering	2	BTM252	Regulatory Basis of Development and Manufacture of Biopharmaceuticals
3	BTM243	Quality Control and Management	3	BTM253	Health Care Biotechnology
4	BTM244	Instrumental Methods of Analysis			
5	BTM245	Chemical Reaction Engineering, Transport Phenomena and Mathematical Method			



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**III Semester M. Tech. – Biotechnology**

Sl. No	Subject code	Course title	Teaching department	Credits				Contact hours	Marks			Exam duration in hrs
				L	T	P	Total		CIE	SEE	Total	
1	BTM310	Practical Training in Industry / Exploration Research	Biotechnology	0	0	4	4	–	100	–	100	–
2.	BTM41P	Project Work (Phase-I)	Biotechnology	0	0	14	14	–	100	–	100	–
				<b>Total credits</b>			<b>18</b>	<b>–</b>	<b>Total marks</b>		<b>200</b>	<b>–</b>



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**IV Semester M. Tech. – Biotechnology**

Sl. No	Subject code	Course title	Teaching department	Credits				Contact hours	Marks			Exam duration in hrs
				L	T	P	Total		CIE	SEE	Total	
1	BTM41P	Project Work (Phase-II)	Biotechnology	–	–	26	26	–	200	100	300	3
				Total credits			26	–	Total marks		300	–