

## Course Structure for M.Sc. Microbiology

S. N.	Code		Course Title	Course Credits		
				Theory	Practical	Total
<b>Compulsory courses</b>						
1	BLT	801	Basic Concepts in Laboratory Techniques Technical Writing and Communications	0	1	1
2	TWC	801	Skills	0	1	1
3	BIB	801	Biosafety, IPR and Bioethics	1	0	1
4	SEM	801	PG Seminar -I	0	2	2
5	SEM	802	PG Seminar -II	0	2	2
6	PRJ	801	PG Seminar -III (Project proposal)	0	5	5
7	PRJ	802	PG Seminar –IV (Research Dissertation)	0	15	15
8	IND	801	PG Industrial Visit	0	1	1
9	CWK	801	PG Course work - I	0	1	1
10	CWK	802	PG Course work -II	0	1	1
<b>Total Credits of Compulsory Courses</b>				<b>1</b>	<b>29</b>	<b>30</b>
<b>Core Courses (Minimum 40 Credits)</b>						
1.	CEB	801	Molecular Cell Biology	3	1	4
2.	BIC	801	Advanced Biochemistry	3	1	4
3.	MIC	802	General Microbiology	3	1	4
4.	IMM	801	Infection and Immunity	3	1	4
5.	STAT	801	Biostatistics	3	1	4
6.	GEN	801	Genetics	3	1	4
7.	BINF	801	Bioinformatics	3	1	4
8.	BIP	801	Tools and Techniques in Biology	3	1	4
9.	MOB	801	Molecular Biology	3	1	4
10.	MOB	802	Recombinant DNA technology	3	1	4
11.	MIC	803	Microbial Genetics and Physiology	3	1	4
12.	MIC	804	Industrial Microbiology	3	1	4
13.	MIC	805	Medical Microbiology	3	1	4
14.	MIC	806	Virology	3	1	4
15.	MIC	807	Bioreactor and Bioprocess Technology	3	1	4
<b>Total Credits of Core Courses</b>				<b>45</b>	<b>15</b>	<b>60</b>
<b>Elective Courses (Minimum 10 Credits)</b>						
1.	MIC	808	Food and Dairy Microbiology	3	1	4
2.	MIC	809	Metabolic Engineering and Synthetic Biology	3	1	4
3.	ENS	805	Fundamentals of Ecology and Ecosystems	3	1	4
6.	BIT	804	Nanobiotechnology	3	1	4
7.	BIP	802	Molecular Biophysics	3	0	3
8.	GNP	801	Functional Genomics and Proteomics	3	0	3
9.	ENS	811	Environmental Bioremediation Plant Molecular and Developmental	3	1	4
10.	PLS	801	Biology	3	1	4

<b>Total Credits of Elective Courses</b>	<b>24</b>	<b>6</b>	<b>30</b>
<b>Total Available Credits</b>	<b>70</b>	<b>50</b>	<b>120</b>