

## M.Sc. Microbiology

**Total Credits: 100**

### **Semester I**

<b>COURSE CODE</b>	<b>PAPER</b>	<b>CREDITS</b>
PSMBTC101	Cell Biology	4
PSMBTC102	Bacteriology and Virology	4
PSMBTC103	Biochemistry & Metabolism	4
PSMBTC104	Molecular Biology	4
PSMBPC105	Laboratory course in Bacteriology and Virology and Cell Biology	4
PSMBPC106	Laboratory course in Biochemistry & Metabolism and Molecular Biology	4
<b>TOTAL</b>		<b>24</b>

**STUDENTS WILL REGISTER FOR A MINIMUM OF 2 CREDIT COURSE FROM SWAYAM**

### **Semester II**

<b>COURSE CODE</b>	<b>PAPER</b>	<b>CREDITS</b>
PSMBTC201	Genetic Engineering	4
PSMBTC202	Enzymology	4
PSMBTC208	Microbial Genetics	2
PSMBTC204	Molecular Virology	2
PSMBTC205	Immunology	4
PSMBTC210	Term Paper	1
PSMBPC206	Laboratory course in Genetic Engineering and Enzymology	4
PSMBPC209	Laboratory course in Microbial Genetics and Immunology	4
<b>TOTAL</b>		<b>25</b>

### Semester III

<b>COURSE CODE</b>	<b>PAPER</b>	<b>CREDITS</b>
PSMBTC301	Mycology and Phycology	4
PSMBTC302	Food Microbiology	2
PSMBTC303	Bioprocess Engineering	4
PSMBTC310	Bioinformatics & Biostatistics	2
PSMBTC308	IPR	2
PSMBTE309	Nanotechnology in Biology	2
PSMBTC311	Review Paper writing	1
PSMBPC314	Laboratory course in Mycology and Phycology and Food Microbiology	4
PSMBPC312	Laboratory course in Bioprocess Engineering	2
PSMBPC313	Laboratory course in Bioinformatics	2
<b>TOTAL</b>		<b>25</b>

**Students will register for a minimum of 4 credits of course from other Departments of the University**

### Semester IV

<b>COURSE CODE</b>	<b>PAPER</b>	<b>CREDITS</b>
PSMBDC408	Research Project+Project presentation+Viva-Voce+Dissertation	08
PSMBDC402	Journal Club	2
PSMBTC406	Environmental Microbiology	2
PSMBTC404	Medical Microbiology	4
PSMBPC407	Laboratory course in Environmental microbiology	2
<b>TOTAL</b>		<b>18</b>

**Students will register for a minimum of 4 credits of course from other Departments of the University**

**Open courses offered by the School:-**

- 1. Techniques in Biotechnology** 4 Credits (To 3<sup>rd</sup> Sem students)
- 2. Essentials in Microbiology and Biochemistry** 4 Credits (To 4<sup>th</sup> Sem students)