

*Progressive Education Society's*  
**Modern College of Arts, Science and  
Commerce,**  
Shivajinagar, Pune 5  
(An Autonomous College Affiliated to Savitribai Phule Pune University)

## **Framework of Syllabus**

**For B.Sc. Microbiology**

**(2019-20 Course)**

**(with effect from 2019-20 )**

**CIA:** Continuous Internal Evaluation

**Semester 1 (First Year)**

Course Type	Course Code	Course / Paper Title	Hours / Week	Credit	CIA	End Sem Exam	Total
CCT-1	19ScMicU101	Introduction to Microbiology	03	02	40	60	100
CCT-2	19ScMicU102	Techniques in Microbiology	03	02	40	60	100
CCP-1	19ScMicU103	Practical course based on Theory Papers I and II	03	02	40	60	100
<b>Total Credits</b>			-	<b>06</b>			

**Semester 2 (First Year)**

Course Type	Course Code	Course / Paper Title	Hours / Week	Credit	CIA	End Sem Exam	Total
CCT-9	19ScMicU201	Biochemistry and cell organization	03	02	40	60	100
CCT-10	19ScMicU202	Bacterial growth and cultivation	03	02	40	60	100
CCP-5	19ScMicU203	Practical course based on Theory Papers I and II	03	02	40	60	100
<b>Total Credits</b>			-	<b>06</b>			

**Semester 3 (Second Year)**

Course Type	Course Code	Course / Paper Title	Hours / Week	Credit	CIA	End Sem Exam	Total
CCT-19	19ScMicU201	Bacterial Systematics and Metabolism	04	2.5	40	60	100
CCT-20	19ScMicU202	Soil Microbiology and Agricultural Microbiology OR Environmental Microbiology I	04	2.5	40	60	100
CCP-9	19ScMicU203	Practical course based on Theory Papers I and II	04	02	40	60	100
<b>Total Credits</b>			-	<b>07</b>			

**Semester 4 (Second Year)**

Course Type	Course Code	Course / Paper Title	Hours / Week	Credit	CIA	End Sem Exam	Total
CCT-25	19ScMicU201	Bacterial Molecular Biology	04	2.5	40	60	100
CCT-26	19ScMicU202	Air and Water Microbiology OR Environmental Microbiology II	04	2.5	40	60	100
CCP-13	19ScMicU203	Practical course based on Theory Papers I and II	04	02	40	60	100
<b>Total Credits</b>			-	<b>07</b>			

**Semester 5 (Third Year)**

Course Type	Course Code	Course / Paper Title	Hours / Week	Credit	CIA	End Sem Exam	Total
DSET-1	19ScMicU501	Medical Microbiology I	04	2.5	40	60	100
DSET-2	19ScMicU502	Molecular Biology I	04	2.5	40	60	100
DSET-3	19ScMicU503	Enzymology	04	2.5	40	60	100
DSET-4	19ScMicU504	Immunology I	04	2.5	40	60	100
DSET-5	19ScMicU505	Microbiology in Industry I	04	2.5	40	60	100
DSET-6	19ScMicU506	Ecology	04	2.5	40	60	100
	19ScMicU507	Mathematics and Statistics in Biology	04	2.5	40	60	100
DSEP-1	19ScMicU508	Practical course I (based on Theory course)	04	2	40	60	100
DSEP-2	19ScMicU509	Practical course II (based on Theory course)	04	2	40	60	100
DSEP-3	19ScMicU510	Practical course III (based on Theory course)	04	2	40	60	100
<b>Total Credits</b>			<b>-</b>	<b>21</b>			

**Semester 6 (Third Year)**

Course Type	Course Code	Course / Paper Title	Hours / Week	Credit	CIA	End Sem Exam	Total
DSET-7	19ScMicU601	Medical Microbiology I	04	2.5	40	60	100
DSET-8	19ScMicU602	Molecular Biology I	04	2.5	40	60	100
DSET-9	19ScMicU603	Enzymology	04	2.5	40	60	100
DSET-10	19ScMicU604	Immunology I	04	2.5	40	60	100
DSET-11	19ScMicU605	Microbiology in Industry I	04	2.5	40	60	100
DSET-12	19ScMicU606	Biophysics	04	2.5	40	60	100
	19ScMicU607	Microbiology in Food and Dairy	04	2.5	40	60	100
DSEP-4	19ScMicU608	Practical course I (based on Theory course)	04	2	40	60	100
DSEP-5	19ScMicU609	Practical course II (based on Theory course)	04	2	40	60	100
DSEP-6	19ScMicU610	Practical course III (based on Theory course)	04	2	40	60	100
<b>Total Credits</b>			<b>-</b>	<b>21</b>			