

**M.Sc Microbiology****Total credits= 100****Semester I**

COURSE CODE	PAPER	CREDITS
PSMBTC101	Cell Biology	4
PSMBTC110	Bacteriology and Virology	4
PSMBTC103	Biochemistry & Metabolism	4
PSMBTC109	Molecular Biology	4
PSMBPC105	Laboratory course in Bacteriology and Virology and Cell Biology	4
PSMBPC106	Laboratory course in Biochemistry & Metabolism and Molecular Biology	4
TOTAL		24

**Students have to register for a 4 credit course from MOOCs platform and complete it by the end of 3<sup>rd</sup> Semester**

**Semester II**

COURSE CODE	PAPER	CREDITS
PSMBTC210	Genetic Engineering	4
PSMBTC202	Enzymology	4
PSMBTC211	Microbial genetics and Genomics	4
PSMBTC204	Molecular Virology	2
PSMBTC205	Immunology	4
PSMBTC213	Research methodology and scientific communication	1
PSMBPC206	Laboratory course in Genetic Engineering and Enzymology	4
PSMBPC212	Laboratory course in Microbial Genetics and Genomics and Immunology	4
TOTAL		27

**Semester III**

COURSE CODE	PAPER	CREDITS
PSMBTC301	Mycology and Phycology	4
PSMBTC302	Food Microbiology	2
PSMBTC303	Bioprocess Engineering	4
PSMBTC310	Bioinformatics & Biostatistics	2
PSMBTC308	IPR, Bioethics and Entrepreneurship Development	2
PSMBTC317	Nanotechnology in Biology	2
PSMBTC316	Project 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
PSMBTE351	MOOCs from SWAYAM	4
TOTAL		29

**Semester IV**

COURSE CODE	PAPER	CREDITS
PSMBDC408	Research Project+Project presentation+Viva-Voce+Dissertation	08
PSMBDC402	Journal Club	2
PSMBTC406	Environmental microbiology	2
PSMBTC404	Medical Microbiology	4
PSBTTE409	Open Course (from other department of the University)	4
TOTAL		20

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

**Open courses offered by the School: Techniques in Biotechnology to the 4<sup>th</sup> Semester students (4 credits)**