

**DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY,  
AURANGABAD, SUB-CAMPUS OSMANABAD.**



**M.Sc. - MICROBIOLOGY**

**REVISED SYLLABUS**

**(CBCS System)**

**(Effective from June 2016)**

**COURSE STRUCTURE**

**M. Sc. (MICROBIOLOGY)**

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Sub-campus, Osmanabad.**

**Revised Syllabus for M. Sc. Microbiology  
Course Structure**

Paper No.	Title	Credits	Marks	Nature
<b>SEMESTER-I</b>				
MICC 111	Biostatistics, Computer Applications and Research methodology	4	100	Core
MICC 112	Bioenergetics and Enzymology	4	100	Core
MICC 113	Bioinstrumentation Technique and Applications	4	100	Core
MICC 114	Industrial food and Dairy Microbiology	4	100	Core
MICC 115	Research methodology in Microbiology	4	100	Foundation
MICCP-I	Based on MICC 111 + MICC 112	2	50	Core
MICCP-II	Based on MICC 113 + MICC 114	2	50	Core
MICC-Com	Constitution of India	2	50	Foundation
<b>SEM-I -TOTAL</b>		<b>26</b>	<b>650</b>	
<b>SEMESTER-II</b>				
MICC 211	Recent Trends in Virology	4	100	Core
MICC 212	Molecular Immunology	4	100	Core
MICC 213	Microbial Physiology	4	100	Core
MICC 214	Microbial Diversity and Extremophiles	4	100	Core
MICC 215	Research design and review of literature	4	100	Core
MICCP-III	Based on MICC 211 + MICC 212	2	50	Core
MICCP-IV	Based on MICC 213 + MICC 214	2	50	Core
MICC 216	Seminar (Paper Presentation)	2	50	Foundation
<b>SEM-II -TOTAL</b>		<b>26</b>	<b>650</b>	
<b>SEMESTER-III</b>				
MICC 311	Enzyme Technology	4	100	Core
MICC 312	Bioprocess Engineering and Technology	4	100	Core
MICC 313	Molecular Microbial Genetics	4	100	Core
MICC 314	Environmental Microbial Technology /Medical Microbiology	4	100	Generic Elective
MICC 315	Dissertation Part -I	4	100	Core
MICCP-V	Based on MICC 311 + MICC 312	2	50	Core
MICCP-VI	Based on MICC 313 + MICC 314	2	50	Core
MICC-OE	Open elective course for other department- Agriculture Microbiology	4	100	Open Elective
<b>SEM-III -TOTAL</b>		<b>28</b>	<b>700</b>	
<b>SEMESTER-IV</b>				
MICC 411	Recombinant DNA technology	4	100	Core
MICC 412	Fermentation Technology	4	100	Core
MICC 413	Bioinformatics, Microbial Genomics and Proteomics	4	100	Core
MICC 414	Pharmaceutical Microbiology/ Understanding Microbiology	4	100	Generic Elective
MICC 415	Dissertation Part -II	8	200	Core

MICCP-VII	Based on MICC 411 + MICC 412	2	50	Core
MICCP-VIII	Based on MICC 413 + MICC 414	2	50	Core
	<b>SEM-IV -TOTAL</b>	<b>28</b>	<b>700</b>	
	<b>GRAND TOTAL</b>	<b>108</b>	<b>2700</b>	

Total credits  $26+26+28+28=108$ (of which 2 are for constitution of India, 4 for open Elective, 8 for generic elective)

Credits allocated for - Research Components

MICC 115	Research methodology in Microbiology	4	Foundation
MICC 215	Research design and review of literature	4	Core
MICC 216	Seminar (Paper Presentation)	2	Foundation
MICC 315	Dissertation Part -I	4	Core
MICC 415	Dissertation Part -II	8	Core
	<b>TOTAL CREDITS</b>	<b>22</b>	

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