

Mohanlal Sukhadia University

Udaipur

Department of Microbiology



Syllabus and Scheme of Examination

For

M.Sc. CBCS Programme Microbiology

Skill Enhancement Course Elective

S.No.	Type of course	Semester	Course code	Title of the Course
1.	Skill course 1	II	M2MB07SEC01	Skill course elective 1 (Techniques of Microbiology)
2.	Skill course 2	III	M3MB08SEC02	Skill course elective 2 (Probiotics Air and Water microbiology)

Discipline Specific Elective

S.No.	Type of course	Semester	Course code	Title of the Course
1.	A. Industrial Training	IV		Major Research Project (at research laboratory or institute of repute (5 months)
2.	B.			
3.	Discipline Specific Elective 1	IV	M4MB01ET01	Minor Research Project (Compulsory)
4.	Discipline Specific Elective 2(a)	IV	M4MB02ET02	Environmental Microbiology
5.	Discipline Specific Elective 2(b)	IV	M4MB03ET02	Virology
6.	Discipline Specific Elective 3(a)	IV	M4MB04ET03	Food and Dairy Microbiology
7.	Discipline Specific Elective 3(b)	IV	M4MB05ET03	Advances in Microbiology
8.	Discipline Specific Elective 4(a)	IV	M4MB04ET04	Medical Microbiology
9.	Discipline Specific Elective 4(b)	IV	M4MB04ET04	Host- Parasite Interactions

Discipline Specific Elective Practical

S.No.	Type of course	Semester	Course code	Title of the Course
1.	Discipline Specific Elective practical 1,	IV	M4MB06EP01	Based on Choice of DSE
2.	Discipline Specific Elective practical 2	IV	M4MB07EP02	Based on Choice of DSE

SKILL DEVELOPMENT COURSES

MB SEC1 (M2MB07SEC01): TECHNIQUES OF MICROBIOLOGY

TOTAL HOURS: 30

CREDITS: 2

Duration- 6 months

Overview- The program is offered to students undergoing program in Microbiology, Biochemistry, Biotechnology etc. In addition to the practical training the program also gives an excellent opportunity to students to use and work with latest equipments and concepts. Students perform interesting experiments in small groups as well as individually. At the end of the program, interactive session is held to assess the training and also give appropriate counseling which acts as an eye-opener for the budding microbiologist.

Eligibility: Higher secondary /U.G. /P.G. in Science

Goal

Short term skill based Training programs goal to train all the interested individuals to function as independent researchers/experts in a multidisciplinary environment of Biotechnology, Forensic Science, and clinical Research.

Fee – 15,000/- per student

Student intake - 20

Course details-

UNIT I

Credit hours: 6

Sterilization techniques

UNIT II

Credit hours: 6

Preparation of media, Isolation of microorganisms from clinical samples and pure culture techniques

UNIT III

Credit hours: 6

Staining techniques (Grams staining, Negative staining etc.), Determination of total viable count & preparation of growth curves

UNIT IV

Credit hours: 6

Bacterial identification – biochemical tests, Confirmatory tests on selective media.

UNIT V

Credit hours: 6

Enumeration of coliforms in water for human consumption, Antibiotic susceptibility testing, Mutational studies by Replica Plating Technique.