



(M.Sc. - HomeScience) (Food Biotechnology)
(M.Sc. - H.Sc.) (Food Biotechnology) Semester (II)

Course Code	PH02CFBT53	Title of the Course	Practical based on PH02CFBT52 (Recombinant DNA Technology)
Total Credits of the Course	02	Hours per Week	04

Course Objective:	The objective of the course is to acquaint the students with: 1. Bacterial plasmid preparation, gene splicing and ligation 2. Plasmid transformation 3. The extraction and preparation of bacteriophage λ DNA
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Course Content		
Unit	Description	Weightage (%)
1.	Total DNA extraction from E. Coli	18
2.	Large scale plasmid preparation using chloramphenicol amplification	18
3.	Restriction analysis of plasmid DNA	8
4.	Size determination of DNA using electrophoresis	8
5.	Gene introduction into plasmid (splicing and ligation)	8
6.	Plasmid transformation	8
7.	Total DNA extraction from E. Coli	8
8.	Large scale plasmid preparation using chloramphenicol amplification.	8
9.	Restriction analysis of plasmid DNA	8
10.	Size determination of DNA using electrophoresis	8

Teaching-Learning Methodology	Classroom lectures (Blackboard), demonstration and then actual performance by students, discussion of results.
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Evaluation Pattern		
Sr. No.	Details of the Evaluation	Weightage





SARDAR PATEL UNIVERSITY
Vallabh Vidyanagar, Gujarat
(Reaccredited with 'A' Grade by NAAC (CGPA 3.25))
Syllabus with effect from the Academic Year 2021-2022

1.	Internal Written / Practical Examination (As per CBCS R.6.8.3)	15%
2.	Internal Continuous Assessment in the form of Practical, Viva-voce, Attendance (As per CBCS R.6.8.3)	15%
3.	University Examination	70%

Course Outcome: Having completed this course, the learner will be able to:

1.	Conduct bacterial plasmid extraction, gene splicing and ligation, plasmid transformation as well as the extraction and preparation of bacteriophage λ DNA
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