

Subject Code: 2SC2010306	Subject Title: Biotechnology Practical
COURSE TYPE: CORE COURSE	

Course Objective: This will make the students enable to understand and perform various analysis and assay so as to make the student competent for future prospects in academic research or industry.

Teaching scheme (hours) per week		Credit			Theory Marks		Practical Marks		Total
Theory	Practical	Theory	Practical	Total	Uni. Assessment	Cont. Assessment	Uni. Assessment	Cont. Assessment	
-	8	-	8	8	-	-	120	80	200

List of Biotechnology Practicals

1. Various sterilization techniques.
2. Various sources of contaminations and various decontamination methods
3. Preparation of complex nutrient medium (Murashige & Skoog's medium)
4. Selection, Prune, sterilize and prepare an explants for callus culture.
5. To study various steps of Micropropagation & to study the significance of growth hormones in culture medium
6. Plant regeneration from Callus
7. Isolation of protoplast from plant leaves: Enzymatic Method
8. Preparation of Hank's Balanced Salt Solution
9. Preparation of Minimal Essential Growth Medium
10. Isolation of Lymphocyte for culturing
11. Primary cell culture from various tissue
12. Water Analysis
13. Heavy Metal Testing
14. Sterility Testing
15. Antimicrobial Efficacy Test (AET)
16. Isolation & screening of Antimicrobial compound & enzymes from various sources
17. Fermentation of Amylase, Ethanol and Gluconic Acid
18. Industrial/Research Laboratory Visit