



SRI VENKATESWARA COLLEGE OF ENGINEERING

COURSE DELIVERY PLAN - LABORATORY

Page 1 of 2

Department of Biotechnology	LP: BT22611
B.E/B.Tech/M.E/M.Tech : Biotechnology Regulation: 2022	Rev. No: 00
PG Specialisation : -NA-	Date: 20.01.25
Sub. Code / Sub. Name : BT22611/Bioprocess Engineering Laboratory	

Session No*	List of Experiments
CYCLE-I	
1	Effect of pH on Enzyme Activity
2	Effect of Temperature on Enzyme Activity
3	Enzyme of Inhibitors on Enzyme Activity
4	Enzyme Kinetics – Determination of Michaelis-Menton Parameters
5	Enzyme Immobilization – Gel Entrapment and Cross-Linking
6	Enzymatic Conversion in Packed Bed/ Fluidized Bed Column
CYCLE-II	
7	Sterilization Kinetics – Determination of Del Factor
8	Medium Optimization – Plackett Burmann Design/Response Surface Methodology
9	Bacterial Growth –Determination of Specific Growth Rate
10	Estimation of $k_L a$ – Sulfite Oxidation/Dynamic Method
11	Estimation of Overall Heat Transfer Coefficient
12	Estimation of mixing time in reactors
Content beyond syllabus: -NA-	


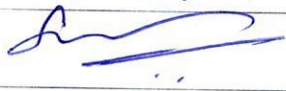
* Session Duration: 200 minutes



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TEXT BOOKS

1. Michael L. Shuler and Fikret Kargi Bioprocess Engineering: Basic Concepts, Second Edition, Pearson Education India, 2015.
2. Pauline M. Doran, Bioprocess Engineering Principles, Second Edition, Elsevier, 2012.
3. James E. Bailey and David F. Ollis, Biochemical Engineering Fundamentals, Second Edition, McGraw Hill Education, 2017.

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Date	20.01.25	20.01.25
Remarks *: Nil		
Remarks *: Nil		

