

### Life Sciences for Engineers Lab

<b>Course Code</b>	19BS1351	<b>Year</b>	II	<b>Semester</b>	I
<b>Course Category</b>	Basic Sciences	<b>Branch</b>	CSE	<b>Course Type</b>	Practical
<b>Credits</b>	2	<b>L-T-P</b>	2-0-0	<b>Prerequisites</b>	-
<b>Continuous Internal Evaluation :</b>	30	<b>Semester End Evaluation:</b>	70	<b>Total Marks:</b>	100

#### Course Outcomes

Upon successful completion of the course, the student will be able to:

<b>CO1</b>	Apply principles of biology to create tangible and economically viable engineering goods.	<b>L3</b>
<b>CO2</b>	Employ knowledge and expertise bio-engineering field.	<b>L2</b>
<b>CO3</b>	Improve the living standards of societies.	<b>L3</b>
<b>CO4</b>	Gain knowledge in genetic engineering.	<b>L1</b>
<b>CO5</b>	Implement the knowledge in genetic engineering in industrial field.	<b>L3</b>

#### Contribution of Course Outcomes towards achievement of Program Outcomes & Strength of correlations (3:Substantial, 2: Moderate, 1:Slight)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
<b>CO1</b>	3						2							
<b>CO2</b>	3						2							
<b>CO3</b>	3						2							
<b>CO4</b>	3						2							
<b>CO5</b>	3						2							

<b>Course Content</b>		
<b>Expt.No.1</b>	Microscopy	<b>CO1, CO3</b>
<b>Expt.No.2</b>	Dissect & mount different parts of plants using Microscope	<b>CO1, CO3</b>
<b>Expt.No.3</b>	Estimation of Proteins by using Biuret method	<b>CO1, CO2</b>
<b>Expt.No.4</b>	Estimation of enzyme activity.	<b>CO1, CO2</b>
<b>Expt.No.5</b>	Estimation of chlorophyll content in some selected plants.	<b>CO1, CO3</b>
<b>Expt.No.6</b>	Nitrogen Cycle: Estimation of Nitrates /Nitrites in soil by using Spectrophotometer	<b>CO2, CO3</b>
<b>Expt.No.7</b>	Mendal's laws	<b>CO1, CO4</b>
<b>Expt.No.8</b>	Solve Problems based on Mapping.	<b>CO2, CO4</b>
<b>Learning Resources</b>		
<b>Text Books</b>	1. Biology: A global approach, N. A. Campbell, J. B. Reece, L. Urry, M. L. Cain and S. A. Wasserman, Tenth Edition, 2015, Pearson. 2. Biology for Engineers, Arthur T Johnson, 2011, CRC press.	