



Seshadripuram Educational Trust

## SESHADRIPURAM FIRST GRADE COLLEGE

Yelahanka New town, Bengaluru-64

Permanently affiliated to Bengaluru City University and recognized by UGC under 2(f) & 12(B)

NAAC accredited 'A' Grade

ISO 9001:2015 certified

### Course Outcomes of B.Sc Biotechnology

Paper Code	Course Title	Semester	CO	Course Outcome
BTT-101	Cell Biology & Genetics	1 <sup>st</sup> Semester	CO 1	Journey of a cell - cell theory, cell organelles, cell division & cell death
			CO 2	Understanding the importance of Biomolecules
			CO 3	Understand the nature & significance of Genetic material & concepts of Genetics
			CO 4	Analysis of importance of enzymes in living organisms
			CO5	Mechanism of mutation and the genetic diseases
BTT-102	Microbiology & Biostatistics	2 <sup>nd</sup> Semester	CO1	Importance of sterilization and its applications
			CO2	Knowledge on structure, physiology & classification of microorganisms
			CO3	understand the epidemiology, mechanism, symptoms & treatment of important human diseases
			CO4	Knowledge on principle & construction of different types of microscopes
			CO5	Application of statistics in biology



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BTT-301	Biochemistry & Biophysics	3 <sup>rd</sup> Semester	<p>CO1</p> <p>CO2</p> <p>CO3</p> <p>CO4</p> <p>CO5</p>	<p>To understand and apply biophysical and analytical techniques</p> <p>To apply the applications of spectroscopic and isotope techniques</p> <p>The course is intended to make the student understand the structures and functions of biomolecules</p> <p>Identification and understanding the details of biomolecules with examples</p> <p>Identify the characteristics of Biological chemistry</p>
BTT-401	Molecular Biology	4 <sup>th</sup> Semester	<p>CO1</p> <p>CO2</p> <p>CO3</p> <p>CO4</p> <p>CO5</p>	<p>Understand the basic concepts of nucleicacids</p> <p>Knowledge on central dogma of Molecular biology</p> <p>Understand the gene organization, expression &amp; regulation in Prokaryotes &amp; Eukaryotes</p> <p>Mechanism of genetic recombination in living organisms</p> <p>Transposable elements &amp; its significance</p>
BTT-501	Genetic Engineering & Environmental Biotechnology	5 <sup>th</sup> Semester	<p>CO1</p> <p>CO2</p> <p>CO3</p>	<p>To remember the basics of Screening and selection of recombinant host cells and apply construction of gene libraries, Molecular biology techniques</p> <p>Analyze and understand the technology of bioremediation, treatment of municipal waste, industrial effluents, bio fertilizers &amp; bioleaching</p> <p>Understand Renewable, Non-Renewable resources of energy, Conventional fuels and Modern fuels</p>



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			CO4	To understand the concepts of Genetic Engineering and its tools.
			CO5	Apply the basics of In Vitro construction of recombinant DNA molecules and Transformation of r-DNA
BTT-503	Immunology & Animal Biotechnology	5 <sup>th</sup> Semester	CO1	Understand the details of immunology & animal biotechnology
			CO2	Types of Vaccination and immunization
			CO3	To learn the expression of cloned proteins in animal cells and methods of growth factors, antibodies and vaccines production
			CO4	To understand the different techniques in transgenic animal production
			CO5	Ideas and protocols behind culturing of Animal Cells
BTP-601	Plant Biotechnology	6 <sup>th</sup> Semester	CO1	To understand the basics of various invitro methods in plant biotechnology
			CO2	To learn the transformation techniques involved in transgenic plant production & various organ production aseptically
			CO3	Developing concepts in Biotechnology and Intellectual Property Rights (IPR)
			CO4	Role of tissue culture in agriculture, horticulture, forestry & Production of edible vaccines
			CO5	Benefiting humans in terms of Plant Biotechnology



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BTP-603	Industrial Biotechnology	6 <sup>th</sup> Semester	CO1	Learn in details with application, if applicable, To know the concepts of industrial Biotechnology and fermentation technology.
			CO2	Specify the classification and characteristics microbes & remember the basics of Screening, Isolation, maintenance of strains and Types of Fermentation and fermenters.
			CO3	Apply the basics of Process Development and Production of Microbial products
			CO4	Understand the technique of mass culture for Algae and microbial polysaccharides. As well as apply Enzyme Biotechnology in Fermented foods.
			CO5	Use of microbial products industrially for human benefit