

SOS-BSc_Biotechnology

Course mapping with relevance to the local, regional, national, and global developmental needs

Title of the Course	Bioprocess Engineering		
Course Code	BSBT 402 (P)		
Course Outcomes & Bloom's Level	<p>CO1- The course prepares the student to understand the basic concepts of Bioprocess Engineering, its applications and future prospects. (BL1-Remember)</p> <p>CO2- The subject Bioprocess Engineering is designed for under graduate students of biotechnology for understanding of basic concepts of each and every division of the subject along with its applications in other fields. (BL2-Understand)</p> <p>CO3- The course aims to provide experimental basis, and to enable students to acquire a specialized knowledge and understanding. (BL2-Understand)</p> <p>CO4- The course aims to provide basis of analyzing the applications of Bioprocess Engineering in various fields of research and industries. (BL3-Apply)</p> <p>CO5- The course aims to provide basis of design, production and purification of bioproducts produced through research and in industries. (BL3-Apply)</p>		
Course Elements	Skill Development ✓ Entrepreneurship ✓ Employability ✓ Professional Ethics ✗ Gender ✗ Human Values ✗ Environment ✗	SDG (Goals)	SDG4(Quality education)

Course Articulation Matrix

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	2	-	-	-	-	-	-	1	1	-	-	-	-	-
CO2	2	1	-	-	-	-	-	-	1	1	-	-	-	-	-
CO3	1	1	-	-	-	-	-	-	1	1	-	-	-	-	-
CO4	1	2	-	-	-	-	-	-	1	2	-	-	-	-	-
CO5	1	2	-	-	-	-	-	-	1	2	-	-	-	-	-
CO6	-	-	-	-	-	-	-	-	1	2	-	-	-	-	-

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Title of the Course	Animal Physiology		
Course Code	BSBT GE IV (T)		
Course Outcomes & Bloom's Level	<p>CO1- To describe fundamental knowledge of animal physiology(BL1-Remember) CO2- To understand the detailed concepts of digestion respiration excretion the functioning of nerves and muscles Hormones and reproduction(BL2-Understand) CO3- To understand the importance of Physiology and its applications(BL3-Apply) CO4- To provide experimental basis, and to enable students to basic concept of physiology(BL4-Analyze) CO5- To evaluate the applications of Physiology in various fields such as research and development as well as in various industries(BL5-Evaluate) CO6- To apply the understanding of Physiology in their future perspective fields i.e. Medical and clinical, Pathological, drug industries etc. (BL6-Create)</p>		
Course Elements	Skill Development ✓ Entrepreneurship ✓ Employability ✓ Professional Ethics ✗ Gender ✗ Human Values ✗ Environment ✗	SDG (Goals)	SDG1(No poverty) SDG2(Zero hunger) SDG4(Quality education) SDG14(Life below water) SDG15(Life on land)

Course Articulation Matrix

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	-	1	2	2	2	-	-	-	-	-	-	2	-	1
CO2	3	1	1	2	2	2	-	-	-	-	-	-	1	2	2
CO3	2	1	1	2	1	1	-	-	-	-	-	-	2	3	1
CO4	3	-	-	1	1	1	1	-	-	-	-	-	1	2	2
CO5	-	-	-	-	1	-	1	-	-	-	-	-	2	-	1
CO6	-	2	-	-	1	-	-	-	-	-	-	-	1	-	-

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Title of the Course	Agriclutlure Microbiology		
Course Code	DSE II (T)		
Course Outcomes & Bloom's Level	<p>CO1- TO Understand and accurately apply terminology used in the field of microbiology, and understand the fundamental differences between different types of microorganisms including bacteria, viruses, fungi, prions and protozoa(BL2-Understand)</p> <p>CO2- Describe the structure and biology of bacterial cells, including the arrangement and replication of genetic material, and understand the concept of virulence and virulence factors(BL2-Understand)</p> <p>CO3- To analyse how microorganisms may be detected within various environments, including how they may be cultivated within the laboratory setting, and molecular methods of detection(BL3-Apply)</p> <p>CO4- To identify specific microorganisms important to animals, plants and soil ecosystems, and explain why these microorganisms are significant(BL4-Analyze)</p> <p>CO5- Review and evaluate readings relating to microbiology and agricultural production(BL6-Create)</p>		
Course Elements	Skill Development ✓ Entrepreneurship ✓ Employability ✓ Professional Ethics ✗ Gender ✗ Human Values ✗ Environment ✓	SDG (Goals)	SDG4(Quality education)

Course Articulation Matrix

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	2	2	-	-	2	-	-	-	2	2	-	2	2	3
CO2	2	1	2	-	-	3	-	-	-	2	1	-	1	2	2
CO3	2	2	2	-	-	1	-	-	-	1	1	-	1	1	2
CO4	1	2	1	-	-	2	-	-	-	1	2	-	3	1	1
CO5	2	2	1	-	-	1	-	-	-	1	-	-	3	2	1
CO6	2	2	3	-	-	3	-	-	-	-	2	-	2	1	1

