Sree Chitra Thirunal College of Engineering

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Consolidated Course Outcomes Report

Batch	Slno	Subject	CO	Topic	Bloom's taxonomy level
BT 2K20	1	BIOINFORMATICS	CO1	Understand various biological databases.	Understanding(U)
			CO2	Remember the terminologies and concepts in the field.	Remembering(R)
			CO3	Generate and interpret the sequence alignment, multiple sequence alignment and implement the scoring matrices.	Analyzing(A)
			CO4	Articulate the different bioinformatics tools.	Evaluate(E)
	2	DOWNSTREAM PROCESSING	CO1	Outline the theoretical principles underlying various unit operations used in downstream processing.	Understanding(U)
			CO2	Identify and formulate engineering problems relevant to the design and scale-up of bio-separations equipment.	Understanding(U),Applying(P)
			CO3	Understand and sequence bio-separation processes for various applications relevant to sustainable bioprocessing.	Applying(P),Understanding(U)
	3	BIOREACTOR CONTROL AND INSTRUMENTATION	CO1	Illustrate the design elements and hardware elements of a process control system	Understanding(U)
			CO2	Apply the conservation laws to generate process transfer function models to obtain dynamic behavior of the system	Applying(P)
			CO3	Determine the dynamic behaviour of both open and closed loop systems	Applying(P)
			CO4	Design conventional type of controllers for stable operation using selected mathematical method	Applying(P)
	4	CELL BIOLOGY	CO1	Elaborate the fundamental concepts of cellular structure and function	Understanding(U)
			CO2	Analyze, the scientific evidence underlying our current understanding of cellular processes	Understanding(U)
			CO3	Understand the current emerging scientific fields pertaining to cell death.	Understanding(U)
	5	MANAGEMENT FOR ENGINEERS	CO1	Explain the characteristics of management in the contemporary context	Understanding(U)
			CO2	Describe the functions of management	Understanding(U)
			CO3	Demonstrate ability in decision making process and productivity analysis	Understanding(U)
			CO4	Illustrate project management techniques and develop project schedule	Applying(P)
			CO5	Summarize the functional areas of management	Understanding(U)
			CO6	Comprehend the concept of entrepreneurship and create business plan	Understanding(U)
	6	DOWNSTREAM PROCESSING LAB	CO1	Understand the fundamentals of the unit operations involved in the separation and purification of a biological product.	Understanding(U)
			CO2	Analyse Protein extraction by cell disruption techniques.	Analyzing(A)
			CO4	Apply chromatographic techniques for the purification and isolation of protein.	Applying(P)
			CO3	Evaluate the purity of protein samples by different downstream techniques	Evaluate(E)
	7	COMREHENSIVE COURSE WORK	CO1	Prepare for competitive examinations in Biotechnology Engineering like GATE.	Remembering(R)
			CO2	Comprehend the core principles and technologies in Biotechnology Engineering and answer multiple choice questions based on them with confidence	Applying(P)
			CO3	Communicate effectively with scientists and faculties in an academic environment.	Applying(P)
			CO4	Relate and analyze the comprehensive knowledge gained by him/her in the core courses to the field of Biotechnology Engineering	Analyzing(A)