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Sri Adichunchanagiri Shikshana Trust (R)

SJB Institute of Technology

BGS H & E City, Dr. Vishnuvardhana Road, Kengeri, Bengaluru – 560060
Approved by AICTE, New Delhi,
An Autonomous Institution under Visvesvaraya Technological University, Belagavi
Accredited by NAAC with 'A+' grade, Certified by ISO 9001-2015
Recognized by UGC, New Delhi with 2(f) & 12 (B).

Department of Artificial Intelligence and Machine Learning

Course Outcomes and CO-PO-PSO Articulation Matrix

BATCH 2022-2026

SEMESTER-III

Subject: Mathematics for Computer Science	Subject Code: BCS301

Course Outcomes

CO1	Explain the basic concepts of probability, random variables, probability distribution.
CO2	Apply suitable probability distribution models for the given scenario.
CO3	Apply the notion of a discrete-time Markov chain and n-step transition probabilities to solve the given problem.
CO4	Use statistical methodology and tools in the engineering problem-solving process.
CO5	Compute the confidence intervals for the mean of the population.
CO6	Apply the ANOVA test related to engineering problems.

CO-PO-PSO Mapping

COs	POs												PSOs			
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4
CO1	3		2										2	1	1	1
CO2			3	2									1	1	1	1
CO3		2	3		2								1	1	1	1
CO4	2		3										1	2	1	1
CO5	2		3		2					2			1	1	2	1

Subject: Digital Design & Computer Organization	Subject Code: BCS302

Course Outcomes

CO1	Apply the K–Map techniques to simplify various Boolean expressions
CO2	Design different types of combinational and sequential circuits along with Verilog programs.
CO3	Describe the fundamentals of machine instructions, addressing modes and processor performance.
CO4	Explain the approaches involved in achieving communication between processor and I/O devices.
CO5	Analyze internal Organization of Memory and Impact of cache/Pipelining on Processor Performance.

CO-PO-PSO Mapping

COs	POs												PSOs			
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4
CO1	2		1										2		1	
CO2	2	3												2	2	
CO3	2			1	2									2		
CO4	1		2											2		2
CO5	2			2	1								1			2

Subject: Operating Systems		Subject Code: BCS303

	Course Outcomes
CO1	Explain the structure and functionality of operating system.
CO2	Apply appropriate CPU scheduling algorithms for the given problem.
CO3	Analyze the various techniques for process synchronization and deadlock handling.
CO4	Apply the various techniques for memory management.
CO5	Explain file and secondary storage management strategies.

CO-PO-PSO Mapping

COs	POs												PSOs			
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4
CO1	1	2											1			
CO2	2	2											1			
CO3		1	2										1			
CO4		2											1			
CO5	2			1						1			1			

Subject: Data Structures and Applications		Subject Code: BCS304

	Course Outcomes
CO1	Explain different data structures and their applications.
CO2	Apply Arrays, Stacks and Queue data structures to solve the given problems.
CO3	Use the concept of linked list in problem solving.
CO4	Develop solutions using trees and graphs to model the real-world problem.
CO5	Explain the advanced Data Structures concepts such as Hashing Techniques and Optimal Binary Search Trees.

CO-PO-PSO Mapping

COs	POs												PSOs			
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4
CO1	2		3									2	2	1	1	1
CO2	2		3	2								2	2	1	1	1
CO3	3		2									2	2	1	1	1
CO4	3		2									2	2	1	1	1
CO5	3		2									2	1	1	1	1

Subject: Data Structures Laboratory		Subject Code: BCSL305

Course Outcomes

CO1	Explain different data structures and their applications.
CO2	Apply Arrays, Stacks and Queue data structures to solve the given problems.
CO3	Use the concept of linked list in problem solving.

CO-PO-PSO Mapping

COs	POs												PSOs			
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4
CO1	2	1	1			1							2			
CO2	2	2	1	1		1							2			
CO3	2	2	1	1		1							2			
CO4	2	2	1	1		1							2			
CO5												2	1			

Subject: Python Programming for Data Science		Subject Code BDS306B

Course Outcomes

CO1	Describe the constructs of Python programming
CO2	Use looping and conditional constructs to build programs.
CO3	Apply the concept of data structure to solve the real-world problem.
CO4	Use the NumPy constructs for matrix manipulations
CO5	Apply the Panda constructs for data analytics.

CO-PO-PSO Mapping

COs	POs												PSOs			
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4
CO1	3		2										2	1	1	1
CO2			3	2									1	1	1	1
CO3		2	3		2								1	1	1	1
CO4	2		3										1	2	1	1
CO5	2		3			2					2		1	1	2	1

Subject: Data Analytics with Excel													Subject Code BCS358A			
Course Outcomes																
CO1	Use advanced functions and productivity tools to assist in developing worksheets.															
CO2	Manipulate data lists using Outline and PivotTables.															
CO3	Use Consolidation to summaries and report results from multiple worksheets.															
CO4	Apply Macros and Auto filter to solve the given real-world scenario.															
CO-PO-PSO Mapping																
COs	POs												PSOs			
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4
CO1	1	1		1	1				1				1	1		
CO2	1	1		1	1				1				1	1		
CO3	1	1		1	1				1				1	1		
CO4	1	1		1	1				1				1	1		
CO5	1	1		1	1				1				1	1		

HOD 20/12/2023

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