

Department of CSE (Artificial Intelligence & Machine Learning)

III B.Tech I Semester

Subject : AM501PC Design and Analysis of Algorithms

CO	Course Outcome (CO) Statement
CO1	Analyze the time and space complexity of algorithms
CO2	Apply divide-and-conquer and greedy strategies to solve problems
CO3	Design dynamic programming and backtracking algorithms
CO4	Evaluate NP-completeness and approximation algorithms
CO5	Demonstrate teamwork and documentation in algorithmic problem solving

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	3	3	2									3	3	
CO2	3	3	3	3									3	3	2
CO3	3	3	3	3									3	3	2
CO4	3	3	3	3									3	3	3
CO5	3	3	3	3									3	3	3
AVERA GE	3	3	3	2.8									3	3	2.5

Subject : AM502PC Machine Learning

CO	Course Outcome (CO) Statement
CO1	Distinguish between, supervised, unsupervised and semi-supervised learning
CO2	Understand algorithms for building classifiers applied on datasets of non-linearly separable classes
CO3	Understand the principles of evolutionary computing algorithms
CO4	Design an ensembler to increase the classification accuracy
CO5	Demonstrate teamwork, documentation, and communication in ML-based projects

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Subject : AM503PC Computer Networks

CO	Course Outcome (CO) Statement
CO1	Understand the basic concepts of computer networks and reference models
CO2	Analyze data link layer protocols and error detection techniques
CO3	Evaluate medium access control and LAN technologies
CO4	Understand network layer protocols and routing algorithms
CO5	Explore transport and application layer protocols and services

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	3	2	2	2				2			3	2	3	
CO2	3	3	2	2	3				2			2	1	3	
CO3	2	2	3	3	3				3			3	3	3	
CO4	3	3	3	3	3				3			3	3	3	
CO5	3	2	3	2	3				3			3	3	1	
AVERA GE	2.8	2.6	2.6	2.4	2.8				2.6			2.8	2.4	2.6	



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Subject : SM504MS Business Economics & Financial Analysis

CO	Course Outcome (CO) Statement
CO1	The students will understand the various Forms of Business and the impact of economic variables on the Business.
CO2	Understand the elasticity of the demand of the product, different types, and measurement of elasticity of demand and factors influencing on elasticity of demand and supply
CO3	Recognize the Production function, features of Iso-Quants and Iso-Costs, Market Structure, Pricing aspects are learnt.
CO4	The Students can study the firm's financial position by analyzing the Financial Statements of a Company.
CO5	Evaluate different types of financial ratios knowing liquidity, solvency and profitability position of business.

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1					2		2	2			2			2
CO2	1					2		2	2			2			2
CO3	2					1		1	2			2			2
CO4	2					1		1	2			2			2
CO5	2					1		1	2			2			2
AVERAGE	1.5					1.5		1.3	2			2			2



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Subject : AM513PE Web Programming

CO	Course Outcome (CO) Statement
CO1	Design web pages.
CO2	Use technologies of Web Programming
CO3	Apply object-oriented aspects to Scripting.
CO4	Create databases with connectivity using JDBC.
CO5	Build web-based application using sockets.

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	2	3	1	2					2	1	1	3	2	2
CO2	3	3	3	2	2					2	1	1	3	3	2
CO3	3	3	2	1	1					1		1	3	3	2
CO4	3	3	3	2	3					1	1	1	3	3	3
CO5	3	3	3	2	3	1			1	2	2	1	3	3	3
AVERAGE	3.0	2.8	2.8	1.6	2.2	1.0			1.0	1.6	1.2	1.0	3.0	2.8	2.4
GE	0	0	0	0	0	0			0	0	5	0	0	0	0

Subject : AM621PE Software Testing Methodologies

CO	Course Outcome (CO) Statement
CO1	Understand purpose of testing and path testing
CO2	Understand strategies in data flow testing and domain testing
CO3	Develop logic-based test strategies
CO4	Understand graph matrices and its applications
CO5	Implement test cases using any testing automation tool

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	3	3	2									3	3	
CO2	3	3	3	3									3	3	2
CO3	3	3	3	3									3	3	2
CO4	3	3	3	3									3	3	3
CO5	3	3	3	3									3	3	3
AVERAGE	3	3	3	2.8									3	3	2.5



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Subject : AM505PC Machine Learning Lab

CO	Course Outcome (CO) Statement
CO1	Understand modern notions in predictive data analysis
CO2	Select data, model selection, model complexity and identify the trends
CO3	Understand a range of machine learning algorithms along with their strengths and weaknesses
CO4	Build predictive models from data and analyze their performance
CO5	Demonstrate teamwork, documentation, and communication in ML projects

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	3	3		2				2	2	2	2		2	2
CO2	3	3	3		2				2	2	2	2		3	2
CO3	3	3	3		3				3	3	2	3		3	2
CO4	3	3	3		3				3	3	3	3		3	2
CO5	2	2	2		2				3	3	3	2		2	3
AVERAGE	2.8	2.8	2.8		2.4				2.6	2.6	2.4	2.4		2.6	2.2



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Subject : EN508HS Advanced English Communication Skills Lab

CO	Course Outcome (CO) Statement
CO1	To improve the students' fluency in English, with a focus on vocabulary
CO2	To enable them to listen to English spoken at normal conversational speed by educated English speakers
CO3	To respond appropriately in different socio-cultural and professional contexts
CO4	To communicate their ideas relevantly and coherently in writing
CO5	To prepare the students for placements.

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1								3	3	2		3		3	1
CO2								3	3	3		2	1	2	1
CO3								3	3	3		3	2	3	3
CO4								2	3	3		3	1	3	1
CO5								2	3	3		3	3	3	3
AVERAGE								2.6	3	2.8		2.8	1.8	2.8	1.8

Subject : AM507PC UI design- Flutter

CO	Course Outcome (CO) Statement
CO1	Implements Flutter Widgets and Layouts
CO2	Responsive UI Design and with Navigation in Flutter
CO3	Create custom widgets for specific UI elements and also Apply styling using themes and custom styles.
CO4	Design a form with various input fields, along with validation and error handling
CO5	Fetches data and write code for unit Test for UI components and also animation

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Subject : *MC510 Intellectual Property Rights

CO	Course Outcome (CO) Statement
CO1	Distinguish and Explain various forms of IPRs.
CO2	Identify criteria to fit one's own intellectual work in particular form of IPRs.
CO3	Apply statutory provisions to protect particular form of IPRs.
CO4	Appraise new developments in IPR laws at national and international level
CO5	developments in trade mark law

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1						3	3	3				2			
CO2						3	3	3				2			
CO3						3	3	3				2			
CO4						3	3	3				2			
CO5									3	3					
AVERAGE						3	3	3	3	3		2			



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Department of CSE (Artificial Intelligence & Machine Learning)

III B.Tech II Semester

Subject : AM601PC Knowledge Representation and Reasoning

CO	Course Outcome (CO) Statement
CO1	Analyze and design knowledge-based systems intended for computer implementation.
CO2	Acquire theoretical knowledge about principles for logic-based representation and reasoning.
CO3	Ability to understand knowledge-engineering process
CO4	Ability to implement production systems, frames, inheritance systems and approaches to handle uncertain or incomplete knowledge.
CO5	Able to Demonstrate Fuzzy logic, Nonmonotonic Logic, Theories, Models and the world, Semiotics Knowledge Acquisition and Sharing

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	3	3	2	2					1		1	3	3	2
CO2	3	3	2	2	1							1	3	2	2
CO3	3	3	2	2	1					1		1	3	3	2
CO4	3	3	3	3	2							1	3	3	3
CO5	3	3	2	2	1	1		1		1		2	3	3	3
AVERAGE	3.0	3.0	2.4	2.2	1.4	1.0		1.0		1.0		1.2	3.0	2.8	2.4
GE	0	0	0	0	0	0		0		0		0	0	0	0

Subject : AM602PC Data Analytics

CO	Course Outcome (CO) Statement
CO1	Understand the impact of data analytics for business decisions and strategy
CO2	Carry out data analysis/statistical analysis
CO3	To carry out standard data visualization and formal inference procedures
CO4	Design Data Architecture
CO5	Understand various Data Sources

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Subject : AM604PC Natural Language Processing Lab

CO	Course Outcome (CO) Statement
CO1	Show sensitivity to linguistic phenomena and an ability to model them with formal grammars
CO2	Knowledge on NLTK Library implementation
CO3	Work on strings and trees, and estimate parameters using supervised and unsupervised training methods.
CO4	Deploy the NLP model by using morphological analysis
CO5	Evaluate the N-Gram models.

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	3	2	2	1							1	3	2	2
CO2	3	2	2	1	3							1	3	3	2
CO3	3	3	3	3	2							1	3	3	3
CO4	3	3	3	2	3					1		1	3	3	3
CO5	3	3	2	3	2							2	3	3	3
AVERAGE	3.0	2.8	2.4	2.2	2.2					1.0		1.2	3.0	2.8	2.6



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Subject : AM605PC Data Analytics Lab

CO	Course Outcome (CO) Statement
CO1	Understand linear regression and logistic regression
CO2	Understand the functionality of different classifiers
CO3	Implement visualization techniques using different graphs
CO4	Apply predictive analytics for different types of data
CO5	Apply descriptive analytics for different types of data

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	3	2	2	1							1	3	2	2
CO2	3	3	2	2	1							1	3	3	2
CO3	2	2	2	1	3					1		1	2	3	2
CO4	3	3	3	3	2							1	3	3	3
CO5	3	3	2	2	2							1	3	3	3
AVERAGE	2.8	2.8	2.2	2.0	1.8					1.0		1.0	2.8	2.8	2.4



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Subject : AM606PC Industrial Oriented Mini Project/ Internship/Skill Development Course (DevOps)

CO	Course Outcome (CO) Statement
CO1	Understand the fundamental principles of DevOps culture, practices, and the integration of development and operations to achieve continuous delivery and deployment.
CO2	Apply version control systems and collaborative development practices using Git and GitHub for efficient code management and team collaboration.
CO3	Implement continuous integration and continuous deployment (CI/CD) pipelines using automation tools like Jenkins, GitLab CI, or similar platforms for streamlined software delivery.
CO4	Utilize containerization technologies such as Docker and orchestration platforms like Kubernetes for application deployment, scaling, and management in cloud environments.
CO5	Monitor, log, and optimize application performance using DevOps monitoring tools and implement infrastructure as code (IaC) practices for automated infrastructure management.

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	2	2	2									3	2	
CO2	3	3	3	3	2								3	2	2
CO3	2	3	2	3	3								3	3	2
CO4	3	3	3	3	2								3	2	2
CO5	2	2	2	2									2		3
AVERAGE	2.6	2.6	2.4	2.6	2.33								2.8	2.25	2.25