

**STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI**  
**COURSE PLAN June - November 2024**

**Department** : Computer Science  
**Name/s of the Faculty** : Ms. A R Charulatha  
**Course Title** : Network Management and Administration  
**Course Code** : 23CS/PC/NA34  
**Shift** : II

**COURSE OUTCOMES (COs)**

<b>COs</b>	<b>Description</b>	<b>CL</b>
<b>CO1</b>	recall the appropriate Linux commands and tools for administering a computing system, system services, the TCP/IP protocol and shell script constructs	K1
<b>CO2</b>	explain the procedure to install any Linux operating systems, create users, add a file system to a partition, configure dynamic IP addresses and firewalls	K2
<b>CO3</b>	solve issues in managing and administering a single-host and a network	K3
<b>CO4</b>	manage users and groups, file systems, remote access using FTP and SSH	K4
<b>CO5</b>	design a simple TCP/IP based local area network with and without DHCP, develop shell scripts	K5, K6

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Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Jun 19 – 26, 2024 (Day Order 1 - 6)	1	<b>Installation and User management</b> 1.1 System Information hostname - uname - CPU information - physical memory size -hard disk size - shutting down 1.2 Linux Installation Installation Software Media - Methods of Installation - Keyboard type - Setting root password - Selecting Time Zone - Disk Partitioning - Choosing a file system - Host name and Network Configuration	K1, K2	6	CO1-2	Lecture/Demo	Group Discussion/ Quiz  Practical - Knowing the System, Basic Administration
Jun 27 – July 4, 2024 (Day Order 1 - 6)	2	<b>Single Host-Administration</b> 2.1 Working with the shell - shell basics - bash shell – environment variables - PATH, PS1 variables – Configuring shell prompt	K1-K3	6	CO1-3	Lecture/Case analysis	Practical - Creating users and groups, Shell Scripting

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July 5 – 12, 2024 (Day Order 1 - 6)	2	2.2 Managing Software Red Hat Package Manager - Debian Package Management System - dpkg – Compile and Install Software 2.3 Managing file systems Partitioning - File systems - ext3, ext4, Reiserfs, FAT32	K1,K2	6	CO1-2	Lecture/Demo	Practical – Creating a shared project folder  Partitioning disks
July 15 – 23, 2024 (Day Order 1 - 6)	2	Creating a filesystem using mkfs - Mounting and unmounting file systems- /etc/fstab file - fsck - noatime setting - Logical Volume Manager	K1, K2, K6	6	CO1,2 ,5	Lecture/Demo	Practical – Mounting & unmounting file system, Shell Scripting - Smart Compiler
July 24 – 31, 2024 (Day Order 1 - 6)	3	<b>Automating tasks and configuring TCP/IP network</b> 3.1 Shell scripting echo - shell variables- comments - positional parameters - decision making -checking exit status code	K1-K6	6	CO1-5	Lecture/Demo/Assignments  Practical - List only directories, Grep Text Not Binary	<b>Component I – Practical (25 marks) – User groups, File system and Shell Script</b>

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Aug 1 – 5, 2024 (Day Order 1 - 3)	3	3.2 TCP/IP TCP/IP Layers - Headers - TCP Connection - ARP - Hosts and Networks	K4-K6	3	CO4,5	Lecture/Demo	Practical - Shell Scripting
Aug 6 – 10, 2024	<b>C.A. Test - I</b>						
Aug 12 – 14, 2024 (Day Order 4-6)	3	Subnetting - Netmasks- Static routing - Dynamic routing	K2-K6	3	CO2-5	Lecture/Demo	
Aug 16 – 23, 2024 (Day Order 1-6)	3	3.3 Network configuration /etc/hosts file - /etc/network/interfaces - /etc/resolv.conf - /etc/hostname - ifconfig - ping - route- netstat -	K3-K6	6	CO3-5	Lecture/Demo	Practical -Changing Host name, Configuring IP address for a machine
Aug 27 – Sep 3, 2024 (Day Order 1-6)	3	Configuring static IP address - Setting up a local area network 2.4 Core System Services Init daemon - xinetd and inetd - Logging daemon - cron scheduler	K3-K6	6	CO3-5	Lecture/Demo/Group Discussion	Practical - Setting up a LAN

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Sep 4 – 11, 2024 (Day Order 1-6)	4	<b>Boot Loader and Remote access</b> 4.1 Booting and shutting down Boot Loaders - Grub - MBR - grub configuration - init process	K1-K6	6	CO1-5	Lecture/Demo	Practical - Scheduling a Program, Configuring Boot loader, Fixing broken boot loader configuration file.
Sep 12 - 20, 2024 (Day Order 1-6)	4	rc scripts – Running a program as an operating system service	K1-K6	6	CO1-5	Lecture/Demo  Practical - Running a program as an operating system service	<b>Component 2 - Practical (15 marks) Scheduling, Fixing, Running OS service Assignment (10 marks) – Case Study Analysis</b>
Sep 23 - 26, 2024 (Day Order 1-4)	4	4.2 Remote Access Telnet - FTP - Secure Shell - SSH - sshd Server, ssh client	K2-K6	4	CO2-5	Lecture/Demo	Practical - SFTP, Transfer a file using FTP.
Sep 27 – Oct 3, 2024	<b>C.A. Test - II</b>						

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Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Oct 4 – 5, 2024 (Day 5 & 6)	5	<b>DHCP and Firewall</b> 5.1 Dynamic Host Configuration Protocol Dynamic IP address - DHCP - DHCP Server - DHCP Client	K2-K6	2	CO2-5	Lecture/Demo	Practical – Practical - Configuring DHCP
Oct 7 - 15, 2024 (Day Order 1 to 6)	5	5.2 Linux Firewall Firewall basics	K2-K6	6	CO2-5	Lecture/Demo/Case Analysis	Practical - Configuring Firewall
Oct 16 - 22, 2024 (Day Order 1 to 6)	5	Setting Firewall rules	K2-K6	6	CO2-5	Lecture/Assignment/ Group Discussions	Practical
Oct 23 - 24, 2024 (Day Order 1 to 2)	<b>REVISION</b>						

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**Department** : Computer Science  
**Name/s of the Faculty** : Dr. Diana Judith I, Dr. Faustina Joan S P  
**Course Title** : Research Methodology  
**Course Code** : 23CS/PC/RM34  
**Shift** : II

**COURSE OUTCOMES (COs)**

<b>COs</b>	<b>Description</b>	<b>CL</b>
<b>CO1</b>	recall the objective and characteristics of research	K1
<b>CO2</b>	explain the hypothesis for the research problem	K2
<b>CO3</b>	choose the best research methodology for the problem	K3
<b>CO4</b>	analyze the types of research and Statistical Principles	K4
<b>CO5</b>	develop a proposal and write a report using LATEX.	K5, K6

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Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Jun 19 – 26, 2024 (Day Order 1 - 6) 6 Hrs.	1, 2	<b>Unit 1</b> <b>1.1 Introduction to Research</b> Meaning, Objectives and Characteristics of Research	K1-K3	3	1-3	Lecture / Analogy	Activity – Mock Mini-Research
		<b>Unit 2</b> <b>2.1 Literature Review</b> Reading and Reviewing-Hypotheses	K1-K5	3	1-5		
Jun 27 – July 4, 2024 (Day Order 1 - 6) 6 Hrs.	1, 2	<b>Unit 1</b> <b>1.1 Introduction to Research</b> Research Methods Vs. Methodology – Types of Research	K1-K3	3	1-3	Lecture / Analogy / Practical Demo	Activity – Finding the Sources
		<b>Unit 2</b> <b>2.1 Literature Review</b> Questions, and Evidence-Identifying Research Gap (Practical: LaTeX using MikTex software-Introduction)	K1-K5	3	1-5		
July 5 – 12, 2024 (Day Order 1 - 6) 6 Hrs.	1, 2	<b>Unit 1</b> <b>1.1 Introduction to Research</b> Types of Research – Research Process	K1-K3	3	1-3	Lecture / Analogy / Learning By Doing	Component 1: Part 1 – Problem Identification (5 marks)
		<b>Unit 2</b> <b>2.1 Literature Review</b> Problem Statement – Research Ethics – Plagiarism	K1-K5	3	1-5		



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July 15 – 23, 2024 (Day Order 1 - 6) 6 Hrs.	1, 2	<b>1.1 Introduction to Research</b> Criteria of Good Research – Shaping a Research Project	K1-K3	3	1-3	Lecture / Presentation / Practical Demo	Classroom Discussion
		<b>2.1 Literature Review</b> Conflict of Interest Selective Reporting, Misrepresentation (Practical: LaTeX using MikTex software – Document Structure)	K1-K5	3	1-5		
July 24 – 31, 2024 (Day Order 1 - 6) 6 Hrs.	1, 2	<b>1.2 Research Project</b> Research Planning –Students and Advisors – Checklist	K1-K3	3	1-3	Lecture / Presentation / Practical Demo	Activity – Know to Cite
		<b>2.1 Literature Review</b> Unethical Practices in using and Analysing Data. (Practical: LaTeX using MikTex software – Formatting)	K1-K5	3	1-5		

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Aug 1 – 5, 2024 (Day Order 1 - 3) 4 Hrs.	1, 3, 4	<b>1.2 Research Project Checklist</b>  <b>3.1 Experiments for Computing</b> Experimentation - Statistical Principles  <b>4.1 Presentation</b> Editing	K1-K4  K1-K6  K1-K6	1  2  1	1-4  1-5  1-5	Lecture / Presentation	Component 1: Part 2 – Literature Review and Presentation (15 marks)
Aug 6 – 10, 2024	<b>C.A. Test – I</b>						
Aug 12 – 14, 2024 (Day Order 4 - 6) 2 Hrs.	4	<b>4.1 Presentation</b> Editing – Presentations	K1-K6	2	1-5	Lecture / Peer Teaching	Classroom Discussion
Aug 16 – 23, 2024 (Day Order 1 - 6) 6 Hrs.	3, 4	<b>3.2 Writing a Paper</b> Good Style – Style Specifics  <b>4.1 Presentation</b> Presentations (Practical: LaTeX using MikTex software – Formatting)	K1-K6  K1-K6	3  3	1-5  1-5	Lecture / Peer Teaching / Practical Demo	Activity – Mind Mapping

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Aug 27 – Sep 3, 2024 (Day Order 1 - 6) 6 Hrs.	3, 4	<b>3.2 Writing a Paper</b> Style Specifics, Punctuation	K1-K6	3	1-5	Lecture / Peer Teaching	Classroom Discussion
		<b>4.1 Presentation</b> Slides	K1-K6	3	1-5		
Sep 4 – 11, 2024 (Day Order 1 - 6) 6 Hrs.	3, 4	<b>3.2 Writing a Paper</b> Figures, and Tables	K1-K6	3	1-5	Lecture / Peer Teaching / Practical Demo	Component 2: Part 1 – Draft Paper Submission (10 marks)
		<b>4.1 Presentation</b> Posters (Practical: LaTeX using MikTex software – Tables)	K1-K6	3	1-5		
Sep 12 - 20, 2024 (Day Order 1 - 6) 6 Hrs.	3, 4	<b>3.2 Writing a Paper</b> Figures, and Tables	K1-K6	3	1-5	Lecture / Peer Teaching / Practical Demo	Classroom Discussion
		<b>4.1 Presentation</b> Posters – Ethics (Practical: LaTeX using MikTex software – Tables)	K1-K6	3	1-5		

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Sep 23 - 26, 2024 (Day Order 1 - 4) 5 Hrs.	3, 4, 5	<b>3.2 Writing a Paper</b> Other Professional Writing	K1-K6	2	1-5	Lecture / Learning by Doing	Component 2: Part 2 – Poster Presentation (15 marks)
		<b>4.1 Presentation</b> Ethics	K1-K6	1	1-5		
		<b>5.1 Report Writing</b> Report writing using LATEX for research problem	K1-K6	2	1-5		
Sep 27 – Oct 3, 2024	<b>C.A. Test – II</b>						
Oct 4 – 5, 2024 (Day 5 & 6) 1 Hrs.	5	<b>5.1 Report Writing</b> Report writing using LATEX for a research problem	K1-K6	1	1-5	Learning by Doing	Activity – What’s my Prototype?
Oct 7 - 15, 2024 (Day Order 1 - 6) 6 Hrs.	5	<b>5.1 Report Writing</b> Report writing using LATEX for a research problem	K1-K6	6	1-5	Learning by Doing	Report Writing in LaTeX
Oct 16 - 22, 2024 (Day Order 1 - 6) 6 Hrs.	5	<b>5.1 Report Writing</b> Report writing using LATEX for a research problem	K1-K6	6	1-5	Learning by Doing	Teaching Learning Assessment Via Classroom Feedback
Oct 23 - 24, 2024 (Day Order 1 - 2) 2 Hrs.	<b>REVISION</b>						

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**COURSE PLAN June - November 2024**

**Department** : Computer Science  
**Name/s of the Faculty** : Dr. Renuka Devi D  
**Course Title** : Data Analytics  
**Course Code** : 23CS/PC/DA34  
**Shift** : II

**COURSE OUTCOMES (COs)**

<b>COs</b>	<b>Description</b>	<b>CL</b>
<b>CO1</b>	Recall the steps and methods involved in the data analysis process	K1
<b>CO2</b>	Illustrate the different methods involved in Machine Learning process	K2
<b>CO3</b>	Identify Machine Learning techniques to extract actionable value from data	K3
<b>CO4</b>	Analyze the given dataset and train them using appropriate Machine Learning techniques	K4
<b>CO5</b>	Adapt a better Machine Learning technique on a preprocessed dataset, derive insight from results, and investigate the accuracy	K5, K6

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**Course Title** : Data Analytics  
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**Shift** : II

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Jun 19 – 26, 2024 (Day Order 1 - 6) 6 Hrs	1	<b>1.1 Fundamentals of Data Analysis</b> Introduction- The process of data analysis –Types of analytics- Descriptive Analytics - Predictive Analytics - Prescriptive Analytics - Applications- Quantitative messages-techniques for analyzing quantitative data barriers to effective analysis- initial data analysis-main data analysis	K1-K3	6	1-3	Lecture / Presentation / Practical Demo	Brainstorming Session / Elicitation Activity
Jun 27 – July 4, 2024 (Day Order 1 - 6) 6 Hrs	1	<b>1.2 Types of data</b> Different Types of Data- Quantitative and Qualitative Data Numerical, Categorical Data - loading, storage and file formats – Reading and writing data in text Format Binary data formats- interacting with web API- interacting with databases- Getting started with pandas	K1-K3	6	1-3	Lecture / Presentation / Practical Demo	Scenario-Based Discussion/ Explore UCI Datasets/ Online Reflective Journal Entry

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Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
July 5 – 12, 2024 (Day Order 1 - 6) 6 Hrs	2	<b>2.1 Data cleaning</b> Data cleaning and preparation - Handling missing data - Data transformation -String manipulation	K1-K6	6	1-5	Lecture / Presentation / Practical Demo	Practical Exercises/ Concept Mapping
July 15 – 23, 2024 (Day Order 1 - 6) 6 Hrs	2	<b>2.2 Data wrangling</b> Join, combine and reshape - Hierarchical indexing -Combining and merging datasets - Reshaping and pivoting Data aggregation and group functions -group by mechanics data aggregation	K1-K6	6	1-5	Lecture / Presentation / Practical Demo	Practical Exercises / Mini Case Study Analysis
July 24 – 31, 2024 (Day Order 1 - 6) 6 Hrs	2  3	general split-apply-combine-pivot tables and cross tabulation-numPy basics  <b>3.1 Plotting and visualization</b> Matplotlib-figures – subplots- colors, markers and line styles- Ticks, labels and legends, annotations and drawing on subplot-Plotting with pandas and seaborn	K1-K6	6	1-5	Lecture / Presentation / Practical Demo	Practical Exercises / Data Visualization Challenge / Case Study

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Aug 1 – 5, 2024 (Day Order 1 - 3) 3 Hrs	3	<b>3.2 Time series Date and Time</b> Data Types and Tools - Time Series Basics- Date Ranges, Frequencies, and Shifting	K1-K6	3	1-5	Lecture / Presentation / Practical Demo	Component 1 Mini Project – Phase 1  Identify the domain, Data Collection-Datasets-Prepare the ds(EDA) - Visualization  25 Marks
Aug 6 – 10, 2024	<b>C.A. Test – I</b>						
Aug 12 – 14, 2024 (Day Order 4-6) 3 Hrs	3	Time Zone Handling- Periods and Period Arithmetic Resampling and Frequency Conversion	K1-K6	3	1-5	Lecture / Presentation / Practical Demo	Practical Exercises
Aug 16 – 23, 2024 (Day Order 1-6) 6 Hrs	3  4	<b>3.3 Data analysis examples</b>  <b>4.1 Machine Learning</b> Introduction to Machine learning- Need for Machine Learning – Supervised Learning – Unsupervised learning -	K1-K6	6	1-5	Lecture / Presentation / Practical Demo	Practical Exercises/ Real world applications



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Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Aug 27 – Sep 3, 2024 (Day Order 1-6) 6 Hrs	4	Classifications and Regression- Generalization-overfitting underfitting  <b>4.2 Supervised machine learning algorithms</b> k-nearest Neighbor-Linear Models-Naïve Bayes Classifiers- Decision Tree Random forest- Gradient Boosted Decision Tree - model evaluation	K1-K6	6	1-5	Lecture / Presentation / Practical Demo	Practical Exercises/ Activity Quiz
Sep 4 – 11, 2024 (Day Order 1-6) 6 Hrs	4	<b>4.3 Unsupervised learning algorithms</b> Types-dimensionality reduction, feature extraction clustering-k-means clustering- agglomerative clustering-dB scan clustering techniques	K1-K6	6	1-5	Lecture / Presentation / Practical Demo	Practical Exercises/ Case Study
Sep 12 - 20, 2024 (Day Order 1-6) 6 Hrs	5	<b>Unit 5</b> <b>5.1 Model Evaluation and Improvement</b> Cross-validation - Benefits of Cross-validation - Stratified k-fold cross	K1-K6	6	1-5	Lecture / Presentation / Practical Demo	Practical Exercises/ Case Study

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Sep 23 - 26, 2024 (Day Order 1-4) 4 Hrs	5	validation and other strategies - More control over cross-validation	K1-K6	4	1-5	Lecture / Presentation / Practical Demo	Practical Exercises/ Technique Application Exerc
Sep 27 – Oct 3, 2024	<b>C.A. Test – II</b>						
Oct 4 – 5, 2024 (Day 5 & 6) 2 Hrs	5	Grid search - Evaluation metrics and scoring - Using Evaluation metrics in model selection	K1-K6	2	1-5	Lecture / Presentation / Practical Demo	Practical Exercises / Scenario-Based Discussion
Oct 7 - 15, 2024 (Day Order 1 to 6) 6 Hrs	5	<b>5.2 Working with Text Data</b> Types of data represented as strings - Rescaling the data with TF/IDF - Topic Modeling and Document Clustering	K1-K6	6	1-5	Lecture / Presentation / Practical Demo	Component 2 Mini Project – Phase 2 Complete implementation of Data Analytics Project, Result Analysis (Optimization of model) and Inference study (25 Marks)
Oct 16 - 22, 2024 (Day Order 1 to 6) 6 Hrs	-	Revision	K1-K6	6	1-5	Lecture / Presentation / Practical Demo	Case Study / Reflection and Peer Feedback
Oct 23 - 24, 2024 (Day Order 1 to 2) 2 Hrs	<b>REVISION</b>						

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**Department** : Computer Science  
**Name/s of the Faculty** : Dr. Swetha Margaret TA  
**Course Title** : Artificial Intelligence  
**Course Code** : 23CS/PC/AI35  
**Shift** : II

**COURSE OUTCOMES (COs)**

<b>COs</b>	<b>Description</b>	<b>CL</b>
<b>CO1</b>	define and relate the fundamentals of Artificial Intelligence	K1
<b>CO2</b>	demonstrate techniques in solving Artificial Intelligence based problems	K2
<b>CO3</b>	identify appropriate methods to solve Artificial Intelligence based scenario	K3
<b>CO4</b>	examine the reasoning and decision making process in Artificial Intelligence	K4
<b>CO5</b>	adapt an effective strategy for research based problems	K5, K6

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**Name/s of the Faculty** : Dr. Swetha Margaret TA  
**Course Title** : Artificial Intelligence  
**Course Code** : 23CS/PC/AI35  
**Shift** : II

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Jun 19 – 26, 2024 (Day Order 1 - 6) 6 Hrs.	1	<b>Unit 1</b> <b>Introduction</b> AI- The Foundations of Artificial Intelligence- The History of Artificial Intelligence	K1-K2	6	1-2	Lecture / Presentation	Brainstorming Session / Elicitation Activity
Jun 27 – July 4, 2024 (Day Order 1 - 6) 6 Hrs.	1	The State of the Art Risks and Benefits of AI- Intelligent Agents- Agents and Environments- The Structure of Agents	K1-K2	6	1-2	Lecture / Presentation	Scenario-Based Discussion
July 5 – 12, 2024 (Day Order 1 - 6) 6 Hrs.	2	<b>Unit 2</b> Solving Problems by Searching - Problem-Solving Agents - Example Problems- Search Algorithms- Uninformed Search Strategies	K1-K6	6	1-5	Lecture / Presentation	Concept Mapping/ Reflective Discussion

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**Course Code** : 23CS/PC/AI35  
**Shift** : II

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
July 15 – 23, 2024 (Day Order 1 - 6) 6 Hrs.	2	Informed (Heuristic) Search Strategies Heuristic Functions - Search in Complex Environments - Local Search and Optimization Problems- Local Search in Continuous Spaces- Search with Nondeterministic Actions	K1-K6	6	1-5	Lecture / Presentation	Q&A and Peer Review/ Case Study Analysis
July 24 – 31, 2024 (Day Order 1 - 6) 6 Hrs.	2  3	<b>Case study:</b> Depth-First Search (DFS)- image processing, A*- pathfinding, robotics, and route optimization.  <b>Unit 3</b> <b>Knowledge Representation</b> Knowledge-Based Agents- Logic- Propositional Logic: A Very Simple Logic	K1-K6	6	1-5	Lecture / Presentation	Case Study Analysis / Search Algorithm Activity  Logic and NLP Mini Quiz

**STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI**  
**COURSE PLAN June - November 2024**

**Department** : Computer Science  
**Name/s of the Faculty** : Dr. Swetha Margaret TA  
**Course Title** : Artificial Intelligence  
**Course Code** : 23CS/PC/AI35  
**Shift** : II

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Aug 1 – 5, 2024 (Day Order 1 - 3) 3 Hrs	3	First-Order Logic- Syntax and Semantics of First-Order Logic	K1-K6	3	1-5	Lecture / Presentation	Component 1 (25 Marks)  Scenario based assignment with logical analyzation and AI based adaptations. Scenarios will be given by the course teacher.
Aug 6 – 10, 2024	<b>C.A. Test – I</b>						
Aug 12 – 14, 2024 (Day Order 4-6) 3 Hrs	3	Inference in First-Order Logic- Knowledge Representation	K1-K6	3	1-5	Lecture / Presentation	Flash Card Challenge
Aug 16 – 23, 2024 (Day Order 1-6) 6 Hrs.	3	Case study: Natural Language Processing (NLP): First order logic	K1-K6	6	1-5	Lecture / Presentation	Peer Review of Sample Problems / Case Study Analysis

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**Course Title** : Artificial Intelligence  
**Course Code** : 23CS/PC/AI35  
**Shift** : II

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Aug 27 – Sep 3, 2024 (Day Order 1-6) 6 Hrs.	3	semantic parsing and understanding of natural language statements, Virtual Assistants.	K1-K6	6	1-5	Lecture / Presentation	Activity Quiz
	4	<b>Unit 4</b> <b>Uncertain knowledge</b> Acting under Uncertainty- Basic Probability Notation Probabilistic Reasoning					
Sep 4 – 11, 2024 (Day Order 1-6) 6 Hrs.	4	Basic Probability Notation Probabilistic Reasoning- Probabilistic Reasoning over Time	K1-K6	6	1-5	Lecture / Presentation	One-Minute Papers
Sep 12 - 20, 2024 (Day Order 1-6) 6 Hrs.	4	Time and Uncertainty- Inference in Temporal Models- Probabilistic Programming- Relational Probability Models	K1-K6	6	1-5	Lecture / Presentation	Quiz

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**Shift** : II

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Sep 23 - 26, 2024 (Day Order 1-4) 4 Hrs.	4	Case study: Bayesian Networks (BNs)- Bayes algorithm Fuzzy Logic	K1-K6	4	1-5	Lecture / Presentation	Case Study Analysis
	5	<b>Unit 5</b> <b>Decision Making</b> Making Simple Decisions- The Basis of Utility Theory Utility Functions- Decision Networks					
Sep 27 – Oct 3, 2024	<b>C.A. Test – II</b>						
Oct 4 – 5, 2024 (Day 5 & 6) 2 Hrs.	5	Making Complex Decisions- Sequential Decision Problems- Algorithms for MDPs	K1-K6	2	1-5	Lecture / Presentation	Scenario-Based Discussion



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Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Oct 7 - 15, 2024 (Day Order 1 to 6) 6 Hrs.	5	Multiagent Decision Making- Properties of Multiagent Environments- Non- Cooperative Game Theory - Cooperative Game Theory-	K1-K6	6	1-5	Lecture / Presentation	Component 2 (25 Marks) Descriptive based reasoning and answering activities / To build a small AI based game using decision making concepts  Source: <a href="https://thestempedia.com/blog/simple-ai-and-machine-learning-projects-for-students-and-beginners/">https://thestempedia.com/blog/simple-ai-and-machine-learning-projects-for-students-and-beginners/</a>
Oct 16 - 22, 2024 (Day Order 1 to 6) 6 Hrs.	5	Philosophy, Ethics, and Safety of AI- The Future of AI Case study: Multiagent Decision Making- Traffic Management, Markov Decision Processes- Reinforcement Learning	K1-K6	6	1-5	Lecture / Presentation	Case Study / Reflection and Peer Feedback
Oct 23 - 24, 2024 (Day Order 1 to 2) 2 Hrs.	<b>REVISION</b>						

**STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI**  
**COURSE PLAN June - November 2024**

**Department** : Computer Science  
**Name/s of the Faculty** : Madhura Prabha R  
**Course Title** : Multimedia  
**Course Code** : 23CS/PE/MM23  
**Shift** : II

**COURSE OUTCOMES (COs)**

<b>Cos</b>	<b>Description</b>	<b>CL</b>
<b>CO1</b>	Illustrate the concepts of multimedia and World Wide Web	K1,K2
<b>CO2</b>	Apply Photoshop, Flash, multimedia concepts to create animations	K3
<b>CO3</b>	Design web page with different elements using Dreamweaver	K4

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**Course Title** : Multimedia  
**Course Code** : 23CS/PE/MM23  
**Shift** : II

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Jun 19 – 26, 2024 (Day Order 1 - 6)	1	<b>Unit 1</b> <b>1.1 Introduction</b> What is Multimedia – Where to use Multimedia – Introduction to Text, Images, Sound, Animation, Video – File Formats - Stages of a Multimedia Project – Hardware – Software – Authoring Systems – Multimedia Team – Introduction to designing for the World Wide Web	K1-K2	3	1-2	Group discussions	Questionnaire
Jun 27 – July 4, 2024 (Day Order 1 - 6)	2	<b>2.1 Introduction to Adobe Photoshop</b> Features of Adobe Photoshop - Workspace basics – Panels and menus, Tools, Rulers, Undo and History, Keyboard Shortcuts, Grids and Guides	K1-K4	3	1-3	Learning by doing	Lab exercise using simple tools
July 5 – 12, 2024 (Day Order 1 - 6)	2	Image and Color Basics - Palettes, Customizing Color Pickers and Swatches - Image and Color Basics - Blending Modes	K1-K4	3	1-3	Learning by doing	Lab exercise using images

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**Course Title** : Multimedia  
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**Shift** : II

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
July 15 – 23, 2024 (Day Order 1 - 6)	2	Creating, Opening, importing images in Photoshop - Layer Basics – Saving the Photoshop File  <b>2.2 Tools</b> Selection Tools - Drawing and Painting - Assisting Tools	K1-K4	3	1-3	Learning by doing	Lab exercise using reshaping and transformation
July 24 – 31, 2024 (Day Order 1 - 6)	2  3	Image Adjustments – Repair and Restoration – Reshaping and Transformation – Adding Text  <b>3.1 Introduction to Adobe Flash</b> Features, Flash Work Environment	K1-K4	3	1-3	Problem-based learning	<b>Component I:</b> Mini project using photoshop <b>Marks: 25</b> <b>Assessment:</b> Concept & Design (10) Tools and techniques: (15)
Aug 1 – 5, 2024 (Day Order 1 - 3)	3	Stage, Menu Bar, Drawing Tools and their Modifiers - Basic Drawing Techniques – Timeline - Layers - Symbols – Libraries	K1-K4	2	1-3	Problem-based learning	Lab exercise using flash drawing tools
Aug 6 – 10, 2024	<b>C.A. Test – I</b>						
Aug 12 – 14, 2024 (Day Order 4-6)	3	Object types - Image types - Graphics formats - Colors and Resolution	K1-K4	1	1-3	Problem-based learning	Lab exercise using flash graphics tools

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Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Aug 16 – 23, 2024 (Day Order 1-6)	3	<b>3.2 Animation Techniques</b> Animation basics - Tweening and its Types - Shape Hint - Frame-by-Frame Animation - Text Animations - Creating Guide Path	K1-K4	3	1-3	Problem-based learning	Lab exercise using flash animation
Aug 27 – Sep 3, 2024 (Day Order 1-6)	3	Banners - Layer Masking – Onion Skinning - Spot Light Effects – Buttons - Linking Images - Slide Shows - Adding Sound to Movies	K1-K4	3	1-3	Problem-based learning	Lab exercise using layer masking and images
Sep 4 – 11, 2024 (Day Order 1-6)	3  4	Working with Scenes - Publishing Movies  <b>4.1 Introduction to Adobe Dreamweaver</b> Features of Dreamweaver - Customizing Your Workspace - HTML Basics – Text	K1-K4	3	1-3	Problem-based learning	Lab exercise using Dreamweaver basics

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Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Sep 12 - 20, 2024 (Day Order 1-6)	4	Lists and Tables -Working with Images - Working with the Insert Panel - Copying and Pasting Images from Photoshop - Working with Navigation	K1-K4	3	1-3	Project-based learning	<b>Component II:</b> Miniproject using flash  <b>Total Marks: 25</b> <b>Assessment:</b>  Theme and creativity: 10 marks Animation techniques: 15 marks
Sep 23 - 26, 2024 (Day Order 1-4)	4	Creating Internal Hyperlinks - Creating an Image-based Link - Creating an External Link – Working with Forms - Form Elements	K1-K4	2	1-3	Project-based learning	Lab exercise using Hyperlinks
Sep 27 – Oct 3, 2024	<b>C.A. Test – II</b>						
Oct 4 – 5, 2024 (Day 5 & 6)	5	<b>5.1 Mini Project</b> Create a website using Dreamweaver	K1-K4	1	1-3	Case analysis	Website creation using dreamweaver

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<b>Week</b>	<b>Unit No.</b>	<b>Content</b>	<b>Cognitive Level</b>	<b>Teaching Hours</b>	<b>COs</b>	<b>Teaching Learning Methodology</b>	<b>Assessment Methods</b>
Oct 7 - 15, 2024 (Day Order 1 to 6)	5	Photoshop	K1-K4	3	1-3	Case analysis	Website multimedia creation using photoshop
Oct 16 - 22, 2024 (Day Order 1 to 6)	5	Flash	K1-K4	3	1-3	Case analysis	Website multimedia creation using flash
Oct 23 - 24, 2024 (Day Order 1 to 2)	<b>REVISION</b>						