

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI
COURSE PLAN
November 2023 – April 2024

Department : **Computer Science**
Name/s of the Faculty : **Ms. Birunda Antoinette Mary J., Ms. Geethanjali S.**
Course Title : **Procedure Oriented Programming**
Course Code : **23CS/MC/PO24**
Shift : **II**

COURSE OUTCOMES (COs)

COs	Description	CL
CO1	Recall the concepts involved in structures, unions, pointers, file handling and preprocessing	K1
CO2	Explain the acquired knowledge appropriately to a given problem	K2
CO3	Choose appropriate data structures to solve any given problem	K3
CO4	Analyze the different C concepts involved in designing a large program	K4
CO5	To assess the issues, dependency and different methods and develop a better solution for any given problem	K5, K6

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Nov 22 – 23, 2023 (Day Order 1 & 2) 2 Hrs.	1	1.1 Pointers Pointer variable – Address of and Dereferencing operators – Declaring a pointer –Initializing a pointer	K1-K3	2	1-3	Lecture/Demonstration	Discussion & Lab Exercises
Nov 24-30, 2023 (Day Order 1 to 6) 6 Hrs.	1	1.1 Pointers Pointers and Function Arguments – Dynamic memory allocation – malloc, calloc, realloc and free - Pointers and Arrays – Address Arithmetic -	K1-K3	6	1-3	Lecture/Demonstration	Discussion & Lab Exercises
Dec 1-7, 2023 (Day Order 1 to 6) 6 Hrs.	1	1.1 Pointers Character Pointers and Functions - Pointer Arrays - Pointers to Pointers - Multi- dimensional Arrays - Initialization of Pointer Arrays	K1-K3	6	1-3	Lecture/Demonstration	Quiz & Lab Exercises
Dec 8-9, 2023 (Day Order 1, 3)	1	1.1 Pointers Pointers vs. Multi- dimensional	K1-K3	2	1-3	Lecture/Demonstration	Discussion & Lab Exercises

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
2 Hrs.		Arrays - Pointers to Functions					
Dec 11-15, 2023 (Day Order 2 to 6) 5 Hrs.	1	1.2 String Concepts String representation – Initialization - Length – Compare – Copy – Concatenate – Substring - Search – Replace – Conversion to int and vice versa	K1-K3	5	1-3	Lecture/Demonstration	Problem Solving & Lab Exercises
Dec 16 – 22, 2023 (Day Order 1 to 6) 6 Hrs.	1	1.3 String built-in functions strlen, strcmp, strcpy, strcat, strchr, strstr, strev, atoi, iota	K1-K3	3	1-3	Lecture/Demonstration	Component 1: Question and Answers
	2	2.1 Structures and Unions Defining a Structure - Declaring a structure variable - Member operator – Structures and Functions	K1-K5	3	1-5		
Jan 3 – 6, 2024 (Day Order 1 to 4)	2	2.1 Structures and Unions Arrays of Structures - Pointers to Structures –	K1-K5	4	1-5	Lecture/Demonstration	Quiz & Lab Exercises

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
4 Hrs.		Nested Structures					
Jan 8 – 12, 2024	C.A. Test - I						
Jan 13, 2024 (Day Order 1) 1 Hr.	2	2.1 Structures and Unions Arrow operator	K1-K5	1	1-5	Lecture/Demonstration	Discussion & Lab Exercises
Jan 18 -20, 2024 (Day Order 4 to 6) 3 Hrs.	2	2.1 Structures and Unions Self-referential Structures - Typedef – Unions - Bit-fields	K1-K5	2	1-5	Lecture/Demonstration	Discussion & Lab Exercises
Jan 22-29, 2024 (Day Order 1 to 6) 6 Hrs.	3	3.1 Designing a Large Program Issues in developing a large program - Module & its Components (Header files, Object files & The process of linking) – Make utility	K1-K6	6	1-5	Lecture/Demonstration	Discussion & Lab Exercises
Jan 30 – Feb 2, 2024 (Day Order 1 to 4) 4 Hrs.	3	3.1 Designing a Large Program MakeFile structure (Rules, Targets, Prerequisites,	K1-K6	4	1-5	Lecture/Demonstration	Discussion & Lab Exercises

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
		Commands) – Variables - Dependency Checking – Minimizing Rebuilds - Invoking Make – Basic Make syntax Storage classes – extern keyword in multiple files					

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Feb 3, 2024 (Day Order 2) 1 Hr.	4	4.1 File I/O File Pointers	K1-K5	1	1-5	Lecture/Demonstration	Discussion & Lab Exercises
Feb 5- 6, 2024 (Day Order 5 to 6) 2 Hrs.	4	4.1 File I/O Opening a file - Creating a file - Closing - Reading - Writing	K1-K5	2	1-5	Lecture/Demonstration	Quiz & Lab Exercises
Feb 7 – 14, 2024 (Day Order 1 to 6) 6 Hrs.	4	4.1 File I/O Reading – Writing -	K1-K5	3	1-5	Lecture/Demonstration	Quiz & Lab Exercises
Feb 15 – 22, 2024 (Day Order 1 to 6) 6 Hrs.	4	4.1 File I/O File Access (Sequential, Random) - Error Handling	K1-K5	6	1-5	Lecture/Demonstration	Quiz & Lab Exercises
Feb 23 – 24, 2024 (Day Order 1 & 5) 2 Hrs.	4	4.2 Command Line Arguments	K1-K5	6	1-5	Lecture/Demonstration	Lab Exercises
Feb 26 – Mar 1, 2024 (Day Order 2 to 6)	5	5.1 Pre-processing File Inclusion	K1-K2	5	1-2	Lecture/Demonstration	Discussion & Lab Exercises

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
5 Hrs.							
Mar 2, 2024 (Day Order 1) 1 Hr.	5	5.1 Pre-processing Macro Substitution	K1-K2	1	1-2	Lecture/Demonstration	Discussion & Lab Exercises
Mar 4 –8, 2024	C.A. Test - II						
Mar 9 – 16, 2024 (Day 6 & Day Order 1 to 6) 6 Hrs.	5	5.1 Pre-processing Conditional Compilation - Macros – Simple, Nested, Argumented	K1-K2	6	1-2	Lecture/Demonstration	Component 2: Mini Project
Mar 18 - 19, 2024 (Day Order 2 to 3) 2 Hrs.	5	5.1 Pre-processing Macros – Simple, Nested, Argumented	K1-K2	2	1-2	Lecture/Demonstration	Component 2: Mini Project
Mar 20-22, 2024 (Day Order 4 to 6) 3 Hrs.	REVISION						

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI
COURSE PLAN

November 2023 – April 2024

Department : Computer Science
Name/s of the Faculty : Jeyapriya U and Sr. Arockiya Amutha
Course Title : Algorithms and Data Structures
Course Code : 23CS/MC/AD23
Shift : II

COURSE OUTCOMES (COs)

COs	Description	CL
CO1	recall the searching, sorting algorithms, List, Stack, Queue, Tree and Graphs	K1
CO2	explain the algorithms, data structures and hashing functions	K2
CO3	make use of the different data structures for a given problem	K3
CO4	analyse the searching, sorting algorithms and the data structures	K4
CO5	determine the data structure for a given application	K5

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Nov 22 – 23, 2023 (Day Order 1 & 2)	1	1.1 Introduction to Algorithms and Data Structures Pseudo code	K1-K4	1	CO1-4	Lecture	Brainstorming
Nov 24-30, 2023 (Day Order 1 to 6)	1	Algorithm - Characteristics (Finite steps, Unambiguous, Input, Output)-Algorithm Notations - Efficiency of Algorithm- Role of Technology in Efficiency – Best, Average, Worst case-Asymptotic notations- Abstract Data Type	K1-K4	4	CO1-4	Lecture	Quiz
Dec 1-7, 2023 (Day Order 1 to 6)	1	Examples - Data Structure- Examples - Difference between ADT and Data Structures 1.2 Search Algorithms Linear, Binary 1.3 Sorting Algorithms Bubble Sort, Insertion Sort	K1-K4	4	CO1-4	Lecture and video demonstration	Case Study Discussion

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Dec 8-9, 2023 (Day Order 1, 3)	1 2	2.1 List ADT specification - Operations, Traversing, Searching	K1-K4 K1-K5	2	CO1-4 CO1-5	Lecture	Quiz
Dec 11-15, 2023 (Day Order 2 to 6)	2	Insert, delete – Implementation - Array, Memory Allocation	K1-K5	3	CO1-5	Lecture	Discussion Component 1: MCQ (10 marks)
Dec 16 – 22, 2023 (Day Order 1 to 6)	2	Linked List (Singly, Doubly, Circular, Header)	K1-K5	4	CO1-5	Lecture and video demonstration	Case Study
Jan 3 – 6, 2024 (Day Order 1 to 4)	2	Case study of Lexicon using Linked List	K1-K5	2	CO1-5	Lecture	Quiz
Jan 8 – 12, 2024	C.A. Test - I						
Jan 18 -20, 2024 (Day Order 4 to 6)	3	3.1 Stack ADT specification - Operations – Push, Pop, Implementation (Array)	K1-K5	2	CO1-5	Lecture	Quiz

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Jan 22-29, 2024 (Day Order 1 to 6)	3	Implementation (Linked List) - Applications - Infix to Postfix conversion, Postfix Evaluation, Recursion-QuickSort, Merge Sort 3.2 Queue ADT specification	K1-K5	4	CO1-5	Lecture and video demonstration	Discussion and Tracing the Algorithms Component 2 (25 marks)- Problem solving, Tracing the Algorithms , Finding the efficiency of the algorithms
Jan 30 – Feb 2, 2024 (Day Order 1 to 4)	3	Operations- Enqueue, Dequeue, Implementation (Array, Linked List)	K1-K5	2	CO1-5	Lecture	Quiz and Discussion
Feb 3, 2024 (Day Order 2)	4	4.1 Tree Definition and Terms	K1-K5	1	CO1-5	Lecture	Quiz
Feb 5- 6, 2024 (Day Order 5 to 6)	4	Binary Tree - Representation, Traversal, Searching - Binary Search Tree - Searching, Deleting and Inserting	K1-K5	2	CO1-5	Lecture and video demonstration	Discussion and Quiz

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Feb 7 – 14, 2024 (Day Order 1 to 6)	4	Linked List Implementation of BST- Implementing a Lexicon using BST – Heap	K1-K5	4	CO1-5	Lecture	Discussion
Feb 15 – 22, 2024 (Day Order 1 to 6)	4	Priority Queue ADT - Heap Property and Shape Property – Types of Heap (MinHeap, MaxHeap) – Build a heap – Operations (Insert, Delete) - Heap sort	K1-K5	4	CO1-5	Lecture	Quiz and Discussion
Feb 23 – 24, 2024 (Day Order 1 & 5)	5	5.1 Graph Definition and Concepts - Representation of Graphs - Graph Traversals (Breadth First Search and Traversal, Depth First Search and Traversal) – Shortest Path algorithm (Dijkstra’s algorithm)	K1-K5	3	CO1-5	Lecture	Roleplay Component 3 (15 marks)- Tracing the Algorithms and Problem solving

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Feb 26 – Mar 1, 2024 (Day Order 2 to 6)	5	5.2 Hashing Hash Table – Hash function - Properties of hash function	K1-K2	4	2	Lecture	Discussion and Problem solving
Mar 4 –8, 2024	C.A. Test - II						
Mar 9 – 16, 2024 (Day 6 & Day Order 1 to 6)	5	Collision – Collision Resolution (Open Addressing, Closed Addressing) – Case study of a Lexicon using Hash Table 5.3 Identifying data structures for real time applications	K1-K2 K1-K5	5	CO1-2 CO1-5	Lecture	Discussion
Mar 18 - 19, 2024 (Day Order 2 to 3)	5	Backlogs		2	CO1-5	Lecture	Quiz
Mar 20-22, 2024 (Day Order 4 to 6)	REVISION						

**STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI
COURSE PLAN**

November 2023 – April 2024

Department : **COMPUTER SCIENCE**
Name/s of the Faculty : **Sr. Amutha, Ms. Nandhini S**
Course Title : **ENVIRONMENTAL STUDIES**
Course Code : **23CS/GE/ES12**
Shift : **II**

COURSE OUTCOMES (COs)

COs	Description	CL
CO1	Identify the importance of the natural environment and its components and the natural and anthropogenic threats to the environment.	K1
CO2	Describe the different components of the natural environment, the threats faced and mitigation of threats	K2
CO3	Apply the knowledge obtained ethically, for sustainable development and biodiversity conservation	K3
CO4	Analyse the role of the individual in protecting the environment	K4
CO5	Evaluate the significance of, and threats to the environment and provide solutions that promote sustainability and conservation.	K5, K6

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Nov 22 – 23, 2023 (Day Order 1 & 2)	1	Unit I 1.1 Introduction The multidisciplinary nature of environmental studies; Environmental Ethics- Role of the Individual in protecting the environment	K1-K6	1	1-5	Presentation and Lecture	Questionnaire
Nov 24-30, 2023 (Day Order 1 to 6)	1	1.2 Natural Resources: Renewable (forests and water) and nonrenewable(minerals) – energy resources: renewable and nonrenewable sources, impact of over-exploitation	K1-K6	2	1-5	Presentation and Lecture	Group Discussion
Dec 1-7, 2023 (Day Order 1 to 6)	1	1.3 Ecosystems: Terrestrial (forest, grassland and desert) and aquatic (ponds, oceans and estuaries); structure and function	K1-K6	2	1-5	Lecture and Demo	Model Making

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Dec 8-9, 2023 (Day Order 1, 3)	1	-	-	-	-	-	-
Dec 11-15, 2023 (Day Order 2 to 6)	1	<p>1.4 Biodiversity: India as a mega-diversity nation; threats to biodiversity; insitu and ex-situ conservation and biodiversity</p> <p>1.5 Solid waste Management: Source Segregation and Rainwater Harvesting</p>	K1-K6	2	1-5	Presentation and Lecture	Chart Work
Dec 16 – 22, 2023 (Day Order 1 to 6)	2	<p>Unit-2</p> <p>2.1 Environmental Pollution: Air, Water, Noise and Plastic Pollution: causes, effects and control measures – Impact of over-population on pollution and health – carbon footprint</p>	K1-K6	2	1-5	Presentation and Lecture	Component I Art Making out of Waste Materials

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
		2.2 The Environmental Dimension of Sustainable Development: The United Nations Sustainable Development Goals of the 2030 Agenda					Quiz

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Jan 3 – 6, 2024 (Day Order 1 to 4)	2	2.3 Climate change and Environmental Disasters: Natural Disasters: floods, earthquakes, cyclones, tsunamis and landslides; man-made disasters: Bhopal Gas Tragedy and Chernobyl Nuclear Disaster	K1-K6	1	1-5	Presentation and Lecture	Discussion
Jan 8 – 12, 2024	C.A. Test - I						
Jan 13, 2024 (Day Order 1)	2	-	-	-	-	-	-
Jan 18 -20, 2024 (Day Order 4 to 6)	2	2.4 Environmental Movements: Chipko, Silent Valley and Narmada Bachao Andolan International Agreements: Montreal Protocol, Kyoto Protocol and Climate Change Conferences	K1-K6	1	1-5	Presentation and Lecture	Group Discussion
Jan 22-29, 2024	2	2.5 An overview of Environmental Laws in	K2-K6	2	1-5	Presentation and Lecture	Role Play

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
(Day Order 1 to 6)		India: Environmental (Protection) Act 1986, Biological Act 2002, National Green Tribunal Act 2010, Coastal Regulation Zone Notifications, 2011					
Jan 30 – Feb 2, 2024 (Day Order 1 to 4)	2	2.5 An overview of Environmental Laws in India: Environmental (Protection) Act 1986, Biological Act 2002, National Green Tribunal Act 2010, Coastal Regulation Zone Notifications, 2011	K2-K6	1	1-5	Presentation and Lecture	Discussion
Feb 3, 2024 (Day Order 2)	3	Unit 3 3.1 A study of the ecofriendly initiatives on campus	K2-K6	1	1-4	Presentation and Lecture	Role Play
Feb 5- 6, 2024 (Day Order 5 to 6)	3	3.2 A critical review of an environmental documentary film	K6	1	1-4	Presentation and Lecture	Component II Presentation on Eco Friendly Environment

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Feb 7 – 14, 2024 (Day Order 1 to 6)	3	3.2 A critical review of an environmental documentary film	K6	2	1-4	Presentation and Lecture	Component II Presentation on Eco Friendly Environment
Feb 15 – 22, 2024 (Day Order 1 to 6)	3	3.2 A critical review of an environmental documentary film	K6	2	1-4	Presentation and Lecture	Component II Presentation on Eco Friendly Environment
Feb 23 – 24, 2024 (Day Order 1 & 5)	-	-	-	-	-	-	-
Feb 26 – Mar 1, 2024 (Day Order 2 to 6)	3	3.3 Ecofeminism and the contributions of Indian Women Environmentalists	K2-K6	2	1-4	Presentation and Lecture	Chart Work
Mar 2, 2024 (Day Order 1)	-	-	-	-	-	-	-
Mar 4 –8, 2024	C.A. Test - II						
Mar 9 – 16, 2024 (Day 6 & Day Order 1 to 6)	3	3.4 The highlights of Environmental Encyclical-Laudato si-On Care for our Common Home	K1, K2	2	1-4	Presentation and Lecture	Discussion

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Mar 18 - 19, 2024 (Day Order 2 to 3)	3	3.5 Environmental Calendar	K1, K2	1	1-4	Lecture and Demo	Discussion
Mar 20-22, 2024 (Day Order 4 to 6)	REVISION						

**STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI
COURSE PLAN**

November 2023 – April 2024

Department : **COMPUTER SCIENCE**
Name/s of the Faculty : **Ms. Rajalakshmi. S, Ms. Nancy Arokiya Rani. S**
Course Title : **LIFE SKILLS: PERSONAL AND SOCIAL**
Course Code : **23CS/SS/PS13**
Shift : **II**

COURSE OUTCOMES (COs)

COs	Description	CL
CO1	Relate knowledge of important laws to everyday challenges	K1
CO2	Demonstrate an understanding of personal finance	K2
CO3	Apply psychological concepts to self and enhance well-being	K3
CO4	Appraise social issues from a multicultural perspective	K4
CO5	Make decisions and plan their personal finances	K4

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Nov 22 – 23, 2023 (Day Order 1 & 2)	1	Legal Literacy 1.1 Structure of Government	K1	1	1	Presentation and Lecture	Discussion
Nov 24-30, 2023 (Day Order 1 to 6)	1	- Central and State, Urban and Rural 1.2 Laws pertaining to Women (CEDAW) and Children (POCSO)	K1	3	1	Presentation and Lecture	Quiz
Dec 1-7, 2023 (Day Order 1 to 6)	1	1.3 Right to Information Act 2005, drafting and filing an RTI	K1	3	1	Lecture and Demo	Creating a draft and filing an RTI
Dec 8-9, 2023 (Day Order 1, 3)	1	1.4 Introduction to PIL, Landmark PIL cases - Vishaka Vs. State of Rajasthan	K1	1	1	Presentation and Lecture	Puzzle
Dec 11-15, 2023 (Day Order 2 to 6)	1	Hussainara Khatoon Vs. State of Bihar, MC Mehta Vs. Union of India	K1	3	1	Presentation and Lecture	Discussion
Dec 16 – 22, 2023 (Day Order 1 to 6)	1	1.5 Importance of FIR and lodging an FIR	K2	3	2	Presentation and Lecture	Component I : Presentation and Role play
Jan 3 – 6, 2024 (Day Order 1 to 4)	2	2.1 Understanding Self 2.1.1 Psychological wellbeing - meaning	K3	2	3	Presentation and Lecture	Discussion

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Jan 8 – 12, 2024	C.A. Test - I						
Jan 13, 2024 (Day Order 1)	2	components and barriers	K3	1	3	Presentation and Lecture	Discussion
Jan 18 -20, 2024 (Day Order 4 to 6)	2	2.1.2 Gratitude- meaning, nature and expression	K3	2	3	Presentation and Lecture	Create a Gratitude Jar
Jan 22-29, 2024 (Day Order 1 to 6)	2	2.1.3 Resilience- meaning, nature, benefits and simple techniques for building resilience.	K3	3	3	Presentation and Lecture	Create a scenario and apply techniques to build resilience
Jan 30 – Feb 2, 2024 (Day Order 1 to 4)	2	2.2 Understanding Society 2.2.1 Concepts of class, caste, gender, disability, race, culture, religion	K4	2	4	Presentation and Lecture	Discussion
Feb 3, 2024 (Day Order 2)	2	ethnicity, context and language	K4	1	4	Presentation and Lecture	Discussion
Feb 5- 6, 2024 (Day Order 5 to 6)	2	2.2.2 Importance of societal analysis	K4	1	4	Presentation and Lecture	Debate

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Feb 7 – 14, 2024 (Day Order 1 to 6)	2	2.2.3 Social indicators of development – HDI, GDI, Poverty Index, Hunger Index	K4	3	4	Presentation and Lecture	Discussion
Feb 15 – 22, 2024 (Day Order 1 to 6)	2	2.2.4 Issues and challenges for social change in India	K4	3	4	Presentation and Lecture	Component II: Crosswords and Budget planning
Feb 23 – 24, 2024 (Day Order 1 & 5)	3	Personal Financial Planning 3.1 Meaning, Need and Importance of Personal Financial Planning	K2	3	2	Presentation and Lecture	Discussion
Feb 26 – Mar 1, 2024 (Day Order 2 to 6)	3	3.2 Core concepts in Financial Planning – Budget, Savings and Investment	K2	2	2	Presentation and Lecture	Discussion
Mar 2, 2024 (Day Order 1)	3	3.3 Converting non-essential expenditure into Savings and Investment	K4	1	5	Presentation and Lecture	Discussion
Mar 4 –8, 2024	C.A. Test - II						

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Mar 9 – 16, 2024 (Day 6 & Day Order 1 to 6)	3	3.3.1 Forms of Savings – Deposits, Insurance 3.3.2 Types of Investments – Securities, Real Estate and Gold	K4	4	5	Presentation and Lecture	Discussion
Mar 18 - 19, 2024 (Day Order 2 to 3)	3	3.4 Digital transformation in Finance 3.4.1 De-Mat Account 3.4.2 Net Banking and Mobile Banking	K4	1	5	Lecture and Demo	Discussion
Mar 20-22, 2024 (Day Order 4 to 6)	REVISION						

**STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI
COURSE PLAN**

November 2023 – April 2024

Department : **COMPUTER SCIENCE**
Name/s of the faculty : **Sr. Amutha, Ms. Brindha**
Course Title : **INTRODUCTION TO DATA ANALYSIS**
Course Code : **23CS/GE/DA22**
Shift : **II**

COURSE OUTCOMES (COs)

COs	Description	CL
CO1	relate the different types of data exists in real world	K1
CO2	compare various tools and techniques for collecting data	K2
CO3	experiment with data collected using predictive data analysis to derive conclusions	K3

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Nov 22 – 23, 2023 (Day Order 1 & 2)	1	1.1 Fundamentals of Data Analysis Purpose of Data Analysis	K1-K3	1	1-3	Presentation and Lecture	Questionnaire
Nov 24-30, 2023 (Day Order 1 to 6)	1	1.1 Different Types of Data-Quantitative and Qualitative Data-Numerical,	K1-K3	1	1-3	Presentation and Lecture	Questionnaire
Dec 1-7, 2023 (Day Order 1 to 6)	1	1.1 Categorical- Sources of Data -Primary and Secondary	K1-K3	2	1-3	Presentation and Lecture	Group Discussion
Dec 8-9, 2023 (Day Order 1, 3)	1	1.2 Data Collection Steps, Tools	K1-K3	1	1-3	Presentation and Demo	Model Making
Dec 11-15, 2023 (Day Order 2 to 6)	1	1.2 Techniques of Data Collection -	K1-K3	1	1-3	Presentation and Lecture	Chart Making

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Dec 16 – 22, 2023 (Day Order 1 to 6)	1	1.2 Datalayout- Coding - Entering data	K1-K3	2	1-2	Presentation and Lecture	Component I Collecting, Cleaning, Validating and Summarizing Data
Jan 3 – 6, 2024 (Day Order 1 to 4)	2	Unit 2 2.1 Data Cleaning Checking for errors- Spell Checking, removing duplicate rows,	K1-K3	1	1-3	Presentation and Lecture	Questionnaire
Jan 8 – 12, 2024	C.A. Test – I						
Jan 13, 2024 (Day Order 1)	2	2.1 fixing numbers and signs, fixing dates and times, merging and splitting columns	K1-K3	1	1-3	Presentation and Lecture	Practical Exercise
Jan 18 -20, 2024 (Day Order 4 to 6)	2	2.1 transforming and rearranging columns and rows, reconciling table data by joining or matching.	K1-K3	1	1-3	Presentation and Lecture	Practical Exercise

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Jan 22-29, 2024 (Day Order 1 to 6)	2	2.1 Importing Data Importing Text or Microsoft Word Data into Excel- Importing Data from the Web into Excel-Validating Data.	K2-K3	2	1-3	Presentation and Lecture	Role Play
Jan 30 – Feb 2, 2024 (Day Order 1 to 4)	2	2.3 Summarizing data Summarizing Data with Histograms-	K2-K3	1	1-3	Presentation and Lecture	Objective Test
Feb 5- 6, 2024 (Day Order 5 to 6)	2	2.3 Summarizing Dat with Descriptive Statistics Using PivotTables to Describe Data	K2-K3	2	1-3	Presentation and Lecture	Practical Exercise
Feb 7 – 14, 2024 (Day Order 1 to 6)	2	2.3 Summarizing Data with Database Statistical Functions	K6	2	1-3	Presentation and Lecture	Component II Predictive analysis with the data
Feb 15 – 22, 2024 (Day Order 1 to 6)	2	Unit 3 3.1 Sensitivity Analysis with Data Tables - Filtering Data	K6	2	1-3	Presentation and Lecture	Practical Exercise

Week	Unit No.	Content	Cognitive Level	Teaching Hours	COs	Teaching Learning Methodology	Assessment Methods
Feb 23 – 24, 2024 (Day Order 1 & 5)	3	3.1 Consolidating Data - Using Correlations to Summarise Relationships	K6	1	1-3	Presentation and Lecture	Practical Exercise
Feb 26 – Mar 1, 2024 (Day Order 2 to 6)	3	3.1 Incorporating Qualitative Factors into Multiple Regression Functions	K2-K6	1	1-3	Presentation and Lecture	Practical Exercise
Mar 2, 2024 (Day Order 1)	3	3.1 Analysis of Variance: One-Way ANOVA -	K2-K6	1	1-3	Presentation and Lecture	Practical Exercise
Mar 4 –8, 2024	C.A. Test – II						
Mar 9 – 16, 2024 (Day 6 & Day Order 1 to 6)	3	3.1 Randomized Blocks and Two-Way ANOVA- Software Tools	K1, K2	2	1-4	Presentation and Lecture	Practical Exercise
Mar 20-22, 2024 (Day Order 4 to 6)	REVISION						