

TIKA RAM GIRLS COLLEGE SONEPAT

Lesson Plan December '25

NAME OF ASSISTANT PROFESSOR: ANU

CLASS AND SECTION: M.SC 2ND YEAR

SUBJECT : ANALYSIS AND DESIGNING OF ALGORITHMS

DAYS : MONDAY – THURSDAY

SUBJECT:

WEEK 1	DESCRIPTION
15-07-2025	INTRODUCTION TO ALGORITHMS
16-07-2025	ALGORITHM SPECIFICATION-RECURSIVE ALGORITHMS
17-07-2025	PERFORMANCE ANALYSIS
WEEK 2	
21-07-2025	ASYMPTOTIC NOTATIONS, TIME & SPACE COMPLEXITY
22-07-2025	PRACTICAL COMPLEXITIES
23-07-2025	PERFORMANCE MEASUREMENT
24-07-2025	CLASS TEST -I
WEEK 3	
28-07-2025	METHODS TO SOLVE COMPLEXITY- SUBSTITUTION METHOD
29-07-2025	MASTER THEOREM
30-07-2025	RECURSION TREE METHOD
31-07-2025	PROBLEMS ON COMPLEXITY
WEEK 4	
05-08-2025	ELEMENTARY DATA STRUCTURE
06-08-2025	STACKS AND QUEUES
07-08-2025	TREES
WEEK 5	
11-08-2025	PRIORITY QUEUES
12-08-2025	SETS AND DISJOINT SET UNION
13-08-2025	INTRODUCTION TO GRAPHS
14-08-2025	CLASS TEST -II
WEEK 6	
18-08-2025	TYPES -CMplete, NULL, BIPARTITE, ISOMORPHIC ETC.
19-08-2025	WALK TRAIL, PATH CIRCUITS
20-08-2025	REPRESENTATION OF GRAPHS, TRAVERSALS
21-08-2025	SPANNING TREE -MINIMUM SPANNING TREE
WEEK 7	
25-08-2025	TRAVELLING SALESMAN PROBLEM
26-08-2025	ALL PAIR SHORTEST PATH
27-08-2025	TOPOLOGICAL SORTING

28-08-2025	DIFFERENT SEARCHING AND SORTIN ALGORITHMS
WEEK 8	
01-09-2025	DIVIDE AND CONQUER
02-09-2025	BINARY SEARCH
03-09-2025	MERGE SORT , QUICK SORT
04-09-2025	STRASSEN'S MATRIX MULTIPLICATION
WEEK 9	
08-09-2025	GREEDY METHOD
09-09-2025	KNAPSACK PROBLEM
10-09-2025	JOB SEQUENCING WITH DEADLINES
11-09-2025	MINIMUM COST SPANNING TREE – PRIMS , KRUSKAL'S
WEEK 10	
15-09-2025	SINGLE SOURCE SHORTEST PATH
16-09-2025	DYNAMIC PROGRAMMING
17-09-2025	MULTISTAGE GRAPHS
18-09-2025	ALL PAIR SHORTEST PATH
WEEK 11	

24-09-2025	SINGLE SOURCE SHORTEST PATH
25-09-2025	CLASS TEST -III
WEEK 12	
29-09-2025	0/1 KNAPSACK ,TSP
30-09-2025	BICONNECTED COMPONENTS
01-10-2025	BACKTRACKING
02-10-2025	8-QUEENS PROBLEMS
WEEK 13	
06-10-2025	SUM OF SUBSET
08-10-2025	GRAPH COLORING
09-10-2025	HAMILTONIAN CYCLE
WEEK 14	
13-10-2025	KNAPSACK PROBLEM
WEEK 15	
23-10-2025	BRANCH AND BOUND
WEEK 16	
27-10-2025	CLASS TEST -IV
28-10-2025	LEAST COST SEARCH
29-10-2025	FIFO BRANCH AND BOUND
30-10-2025	0/1 KNAPSACK
WEEK 17	
03-11-2025	NP-HARD AND NP-COMPLETE
04-11-2025	NON DETERMINSTIC ALGORITHMS
06-11-2025	THE CLASSES NP-HARD AND NP-COMPLETE

07-11-2025	COOKS THEOREM
WEEK 18	
10-11-2025	NP-HARD GRAPH PROBLEMS
11-11-2025	CLIQUE DECISION PROBLEM (CDP)
12-11-2025	NODE COVER DECISION PROBLEM(NCDP)
13-11-2025	UNIT -I, II REVISION
WEEK 19	
17-11-2025	UNIT -III, IV REVISION
18-11-2025	REVISION

TIKA RAM GIRLS COLLEGE SONEPAT

Lesson Plan December '25

NAME OF ASSISTANT PROFESSOR: ANU

CLASS AND SECTION: M.SC (CS) 2ND YEAR

DAYS : MONDAY – THURSDAY

NAME OF SUBJECT : ADVANCED JAVA

SUBJECT:

WEEK 1	DESCRIPTION
15-07-2025	INTRODUCTION TO LANGUAGE
16-07-2025	APPLICATIONS AND DIFFERENCE
17-07-2025	THE BYTE CODE
WEEK 2	
21-07-2025	SIMPLE JAVA PROGRAM
22-07-2025	JAVA TOKENS , JAVA VIRTUAL MACHINE
23-07-2025	BASIC PROGRAMMING EXAMPLES
24-07-2025	CONSTANTS & VARIABLES
WEEK 3	
28-07-2025	OPERATORS & EXPRESSIONS
29-07-2025	OPERATORS & EXPRESSIONS CONT..
30-07-2025	DECISION MAKING & BRANCHING
31-07-2025	DECISION MAKING & BRANCHING EXAMPLES
WEEK 4	
05-08-2025	LABELLED LOOPS
06-08-2025	INTRODUCTION TO CLASS ,OBJECT AND METHODS
07-08-2025	CREATING OBJECTS AND METHOD DECLARATION
WEEK 5	
11-08-2025	ACCESSING CLASS MEMBERS
12-08-2025	CONSTRUCTORS
13-08-2025	METHOD OVERLOADING
14-08-2025	PRATICAL LAB
WEEK 6	
18-08-2025	INHERITANCE
19-08-2025	OVERRIDING METHODS
20-08-2025	FINAL CLASS & FINALIZER METHODS
21-08-2025	ABSTRACT METHOD & CLASSES
WEEK 7	
25-08-2025	VISIBILITY CONTROL
26-08-2025	ARRAYS , STRINGS AND VERCTORS
27-08-2025	WRAPPER CLASS , ENUMERATED TYPES

28-08-2025	VECTORS, STRINGS
WEEK 8	
01-09-2025	PRACTICAL LAB
02-09-2025	INTERFACES: MULTIPLE INHERITANCE
03-09-2025	DEFINING INTERFACES
04-09-2025	EXTENDING INTERFACES
WEEK 9	
08-09-2025	IMPLEMENTING INTERFACES
09-09-2025	INTRODUCTION TO PACKAGES
10-09-2025	JAVA API PACKAGES
11-09-2025	NAMING CONVENTIONS
WEEK 10	
15-09-2025	CREATING PACKAGES
16-09-2025	PRACTICAL LAB
17-09-2025	ACCESSING PACKAGES
18-09-2025	USING A PACKAGE
WEEK 11	

24-09-2025	MULTITHREADED PROGRAMMING
25-09-2025	CLASS TEST -III
WEEK 12	
29-09-2025	LIFECYCLE OF A THREAD
30-09-2025	THREAD EXCEPTIONS
01-10-2025	THREAD PRIORITY
02-10-2025	SYNCHRONIZATION, IMPLEMENTING RUNNABLE INTERFACE
WEEK 13	
06-10-2025	INTERTHREAD COMMUNICATION
08-10-2025	PRACTICAL LAB
09-10-2025	MANAGING ERRORS AND EXCEPTIONS
WEEK 14	
13-10-2025	APPLET PROGRAMMING
WEEK 15	
23-10-2025	APPLET LIFECYCLE
WEEK 16	
27-10-2025	CREATING AND EXECUTABLE APPLETS
28-10-2025	DESIGNING A WEBPAGE
29-10-2025	RUNNING, PASSING PARAMETERS, DISPLAY NUMERICAL VALUES
30-10-2025	GETTING INPUT FROM USER, EVENT HANDLING
WEEK 17	
03-11-2025	GRAPHICS PROGRAMMING
04-11-2025	LINES & RECTANGLES, CIRCLE & ELLIPSES
06-11-2025	DRAWING ARCS, POLYGONS, LINE GRAPHS

07-11-2025	AWT PACKAGE
WEEK 18	
10-11-2025	INTRODUCTION TP SWINGS
11-11-2025	MANAGING INPUT / OUTPUT FILES IN JAVA
12-11-2025	BYTE STREAM , CHARACTER STREAM
13-11-2025	CREATION OF FILES, READING/WRITING CHARACTERS , BYTES
WEEK 19	
17-11-2025	REVISION
18-11-2025	PRATICAL LAB

TIKA RAM GIRLS COLLEGE SONIPAT

Lesson Plan Format

Name of Assistant/Associate Professor

Reena

Class and Section

M.Sc. 2nd year

Subject

Computer Security

Week 1	Description
15-07-25	
16-07-25	
17-07-25	
18-07-25	
19-07-25	
Week 2	
21-07-25	
22-07-25	
23-07-25	
24-07-25	
25-07-25	
26-07-25	
Week 3	
28-07-25	
29-07-25	
30-07-25	
01-08-25	
02-08-25	
Week 4	
04-08-25	Overview of Comp. Security.
05-08-25	Importance
06-08-25	Security Threats
07-08-25	"
08-08-25	
Week 5	
11-08-25	
12-08-25	
13-08-25	Malware, Phishing, Ransomware

14-08-25	Role based Access Control
Week 6	
18-08-25	
19-08-25	
20-08-25	Cryptographic
21-08-25	"
22-08-25	"
23-08-25	Digital Signature
Week 7	
25-08-25	
26-08-25	
27-08-25	Cyber Attacks and their Impact
28-08-25	Secure SD development
29-08-25	Operating System Security
30-08-25	Process Isolation
Week 8	
01-09-25	
02-09-25	
03-09-25	Secure Boot
04-09-25	Anti malware Tools
06-09-25	Database Security
Week 9	
08-09-25	Role based Access
09-09-25	
10-09-25	Role based Access
11-09-25	Application Security
12-09-25	OWASP Top 10 Secure
13-09-25	API, Penetration Testing
Week 10	
15-09-25	
16-09-25	
17-09-25	Network and Wireless Security
18-09-25	Firewalls
19-09-25	IDS / IPS
20-09-25	VPN

Week 11	
24-09-25	
25-09-25	
26-09-25	Wireless Network Security WEP
27-09-25	
Week 12	
29-09-25	
30-09-25	
01-10-25	WPA2, Emerging Protocol Secure Network Design Zero Trust Architecture.
03-10-25	
04-10-25	
Week 13	
06-10-25	
08-10-25	
09-10-25	Securing IoT Devices.
10-10-25	
11-10-25	
Week 14	
13-10-25	
Week 15	
23-10-25	
24-10-25	
25-10-25	Emerging Threats.
Week 16	
27-10-25	
28-10-25	
29-10-25	Computing in cryptography "
30-10-25	
31-10-25	AI in Cybersecurity Blockchain for Secure Transactions
01-11-25	
Week 17	
03-11-25	
04-11-25	

06-11-25	
07-11-25	Digital forensics and cyber crime investigation
08-11-25	
Week 18	
10-11-25	
11-11-25	
12-11-25	Cyber Security law and framework works.
13-11-25	
14-11-25	
15-11-25	Security management-
Week 19	
17-11-25	
18-11-25	

TIKA RAM GIRLS COLLEGE SONIPAT

Lesson Plan Format

Name of Assistant/Associate ProfessorSania.....
Class and SectionM. SC 2nd Year.....
SubjectCOMPUTER GRAPHICS.....

Week 1	Description
15-07-25	
16-07-25	
17-07-25	
18-07-25	
19-07-25	
Week 2	
21-07-25	
22-07-25	
23-07-25	
24-07-25	
25-07-25	
26-07-25	
Week 3	
28-07-25	
29-07-25	
30-07-25	
01-08-25	
02-08-25	
Week 4	
04-08-25	
05-08-25	
06-08-25	
07-08-25	
08-08-25	
Week 5	
11-08-25	
12-08-25	
13-08-25	

14-08-25	
Week 6	
18-08-25	
19-08-25	
20-08-25	
21-08-25	INTRODUCTION TO GRAPHICS AND HISTORY
22-08-25	"
23-08-25	APPLICATION AND SCOPE OF COMPUTER GRAPHICS
Week 7	
25-08-25	GRAPHICS SYSTEM
26-08-25	RASTER SCAN AND VECTOR GRAPHICS
27-08-25	"
28-08-25	WORKING OF DISPLAY DEVICES
29-08-25	
30-08-25	
Week 8	
01-09-25	INPUT AND OUTPUT DEVICES
02-09-25	"
03-09-25	COLOR MODELS (RGB, HSV, CMYK)
04-09-25	"
06-09-25	
Week 9	
08-09-25	2-D GRAPHICS AND PICTURE CONSTRUCTION
09-09-25	"
10-09-25	LINE, DDA, BRESENHAM'S, CIRCLE ALGORITHMS
11-09-25	"
12-09-25	
13-09-25	
Week 10	
15-09-25	POLYGON DRAWING ALGORITHMS
16-09-25	"
17-09-25	TRANSFORMATION OF GRAPHICS
18-09-25	"
19-09-25	
20-09-25	

Week 11	
24-09-25	TRANSLATION, SCALING, REFLECTION AND SHEARING
25-09-25	
26-09-25	CLIPPING, LINE CLIPPING
27-09-25	
Week 12	
29-09-25	MIDPOINT SUBDIVISION, COHEN SUTHERLAND
30-09-25	
01-10-25	
03-10-25	
04-10-25	
Week 13	
06-10-25	PICTURE CONSTRUCTION TECHNIQUES
08-10-25	
09-10-25	GEOMETRIC PRIMITIVES AND THEIR REPRESENTATIONS
10-10-25	
11-10-25	
Week 14	
13-10-25	INTERACTIVE GRAPHICS
Week 15	
23-10-25	BASIC POSITIONING METHODS
24-10-25	
25-10-25	CONSTRAINTS, GRIDS, GRAVITY FIELD
Week 16	
27-10-25	RUBBER BAND METHODS
28-10-25	
29-10-25	DRAUGHTING, PAINTING, AND DRAWING
30-10-25	
31-10-25	
01-11-25	
Week 17	
03-11-25	3-D PRIMITIVES, AND DISPLAY METHODS
04-11-25	

06-11-25	3-D TRANSFORMATIONS AND TRANSLATION
07-11-25	
08-11-25	
Week 18	
10-11-25	LIGHTING AND SHADING MODELS
11-11-25	
12-11-25	FLAT SHADING, PHONG SHADING
13-11-25	
14-11-25	
15-11-25	
Week 19	
17-11-25	INTRODUCTION TO BLENDER
18-11-25	INTRODUCTION TO PHYSICS-BASED ANIMATION

TIKA RAM GIRLS COLLEGE SONIPAT

Lesson Plan Format

Name of Assistant/Associate Professor Ms. Pooja Lakshmi

Class and Section M.Sc. IInd (IIIrd sem)

Subject Data Warehousing & Mining

Week 1	Description
15-07-25	
16-07-25	
17-07-25	
18-07-25	
19-07-25	
Week 2	
21-07-25	
22-07-25	
23-07-25	
24-07-25	
25-07-25	
26-07-25	
Week 3	
28-07-25	
29-07-25	
30-07-25	
01-08-25	
02-08-25	
Week 4	
04-08-25	Introduction of Data warehousing
05-08-25	Data warehouse
06-08-25	Database system
07-08-25	Data warehouse Architecture
08-08-25	Data warehouse Models
Week 5	
11-08-25	Data Cube
12-08-25	OLAP
13-08-25	Multidimensional data Model

14-08-25	Concept Hierarchies
Week 6	
18-08-25	OLAP operations
19-08-25	Data warehouse implementation
20-08-25	Revision of unit-I
21-08-25	Test
22-08-25	—
23-08-25	—
Week 7	
25-08-25	Intro. of Data Mining
26-08-25	Overview and its Importance
27-08-25	Knowledge Discovery Process
28-08-25	
29-08-25	—
30-08-25	—
Week 8	
01-09-25	classification of Data Mining system
02-09-25	"
03-09-25	Data mining application & challenges.
04-09-25	"
06-09-25	—
Week 9	
08-09-25	Data Pre-processing : Needs
09-09-25	Data objects & Attribute Types
10-09-25	Data cleaning, integration & Reduction
11-09-25	Data Transformation & Discretization
12-09-25	—
13-09-25	—
Week 10	
15-09-25	Data Mining Association & Correlation
16-09-25	Mining frequent Patterns, Associations
17-09-25	"
18-09-25	Test
19-09-25	—
20-09-25	—

Week 11	
24-09-25	Correlations
25-09-25	Frequent Itemset Mining using apriori Algo.
26-09-25	—
27-09-25	—
Week 12	
29-09-25	Pattern evaluation Methods.
30-09-25	Pattern mining in multilevel & Multidimensional
01-10-25	Constraint - Based frequent pattern mining
03-10-25	—
04-10-25	—
Week 13	
06-10-25	Test
08-10-25	Decision Tree Induction, Bayesian classification
09-10-25	n
10-10-25	—
11-10-25	—
Week 14	
13-10-25	Rule Based classification
	—
	—
	—
Week 15	
23-10-25	Test
24-10-25	—
25-10-25	—
Week 16	
27-10-25	Cluster Analysis
28-10-25	n
29-10-25	Basic clustering characteristics
30-10-25	n
31-10-25	—
01-11-25	—
Week 17	
03-11-25	Revision of unit III
04-11-25	Test

06-11-25	Partitioning Methods.
07-11-25	—
08-11-25	—
Week 18	
10-11-25	Hierarchical Methods.
11-11-25	"
12-11-25	Evaluation of clustering methods.
13-11-25	"
14-11-25	—
15-11-25	—
Week 19	
17-11-25	Test
18-11-25	Revision.