

WORK PLAN (Odd Semester August-November 2024)

Paper Name: DISCIPLINE SPECIFIC CORE COURSE- Data Mining-I

Course: B.A. with Computer Science as Major discipline (IIIrd Sem)

Teacher Name: Mr. Rajeev Kumar Rai

S.No.	Month	Content
1	August 2024	Unit 1: Introduction to Data Mining <ul style="list-style-type: none">- Motivation and Challenges for Data Mining- Types of Data Mining Tasks- Applications of Data Mining- Data Measurements- Data Quality- Supervised vs. Unsupervised Techniques Unit 2: Data Pre-Processing <ul style="list-style-type: none">- Data Aggregation- Sampling
2	September 2024	<ul style="list-style-type: none">- Dimensionality Reduction- Feature Subset Selection- Feature Creation- Variable Transformation Unit 3: Cluster Analysis <ul style="list-style-type: none">- Basic Concepts of Clustering- Measure of Similarity Assignment-1, Class Test-1
3	October 2024	<ul style="list-style-type: none">- Types of Clusters and Clustering Methods- K-means Algorithm- Measures for Cluster Validation- Determining Optimal Number of Clusters Unit 4: Association Rule Mining <ul style="list-style-type: none">- Transaction Dataset- Frequent Itemset- Support Measure- Rule Generation- Confidence of Association Rule- Apriori Algorithm- Apriori Principle Assignment-2
4	November 2024	Unit 5: Classification <ul style="list-style-type: none">- Naive Bayes Classifier- Nearest Neighbour Classifier- Decision Tree- Overfitting- Confusion Matrix- Evaluation Metrics and Model Evaluation Class Test-2

Note: Lab Exercises, Assignments, and Class Tests will be covered as per listed topics throughout the session.