

**Program: M.Sc. (Data Science)**

**Year: Part II**

**Semester: III**

**Course: Big Data Analytics**

Course Code: MDS301

Course Outcomes:

After completion of the course,

Learners will be able to

No	Course Outcome	PO Mapping
CO 1 (Remember)	identify the need of new framework to deal with huge amount of data.	PO1, PO 3, PO4
CO 2 (Understanding)	understand the Hadoop framework Hadoop Distributed File System and MapReduce.	PO1, PO 3, PO4
CO 3 (Applying)	demonstrate the different data preprocessing techniques and graph algorithms.	PO1, PO3, PO4
CO 4 (Analysing)	analyze the prediction model for decision making for a given set of problems.	PO1, PO2, PO4, PO5
CO 5 (Evaluating)	compare spark programming with different programming languages.	PO1, PO4, PO5
CO 6 (Creating)	formulate the Hive architecture and compile SQL queries on sample data sets.	PO1, PO3, PO4

**Program: M.Sc. (Data Science)**

**Year: Part II**

**Semester: III**

**Course: Data Science – II**

Course Code: MDS302

Course Outcomes:

After completion of the course,

Learners will be able to

No	Course Outcome	PO Mapping
CO 1 (Remember)	describe data visualisation in big-data analytics.	PO1,PO2
CO 2 (Understanding)	summarize Matrix decomposition techniques to perform data analysis.	PO1 , PO2
CO 3 (Applying)	apply data science concepts and methods to solve problems in real-world contexts.	PO1, PO3, PO4, PO5
CO 4 (Analysing)	classify statistical data analysis of inferential methods and interpret the results contextually.	PO1, PO2, PO4, PO5
CO 5 (Evaluating)	compare data from disparate sources and transform in relational databases.	PO1,PO2, PO4
CO 6 (Creating)	develop relevant programming techniques of moderate complexity and execute in data science.	PO1, PO3, PO4, PO5

**Program: M.Sc. (Data Science)**

**Year: Part II**

**Semester: III**

**Course: Data Visualization**

Course Code: MDS303

Course Outcomes:

After completion of the course,

Learners will be able to

No	Course Outcome	PO Mapping
CO 1 (Remember)	Identify the different data types, visualization types to bring out the insight.	PO-1, PO-2,PO-4
CO 2 (Understanding)	demonstrate visualization dashboard to support the decision making on large scale data.	PO-1,PO-2,PO-4
CO 3 (Applying)	relate the visualization problem on dataset and illustrate Tableau for various data visualization scenarios.	PO-1,PO-2,PO-4
CO 4 (Analysing)	analyze and bring out valuable insight on large dataset.	PO-1,PO-2,PO-4, PO-5
CO 5 (Evaluating)	summarize data visualization to support the decision making on large scale data.	PO-1,PO-2,PO-4
CO 6 (Creating)	develop data visualization models for real life data.	PO-2,PO-4, PO-5

**Program: M.Sc. (Data Science)**

**Year: Part II**

**Semester: IV**

**Course: Deep Learning**

Course Code: MDS401

Course Outcomes:

After completion of the course,

Learners will be able to

No	Course Outcome	PO Mapping
CO 1 (Remember)	recognize the major differences between deep learning and other types of machine learning algorithms.	PO-1, PO-2, PO-4
CO 2 (Understanding)	describe the characteristics of deep learning models that are useful to solve real-world problems.	PO-1, PO-2, PO-4
CO 3 (Applying)	apply different methodologies to create application.	PO-1, PO-2, PO-3, PO-4
CO 4 (Analysing)	analyze appropriate deep learning algorithms for variety of problems.	PO-1, PO-2, PO-4
CO 5 (Evaluating)	evaluate several deep learning models to gain better results.	PO-1, PO-2, PO-3, PO-4
CO 6 (Creating)	formulate algorithms and deep learning models to solve real-world problems.	PO-2, PO-3, PO-4, PO-5

**Program: M.Sc. (Data Science)**

**Year: Part II**

**Semester: IV**

**Course: Web and Social Network Data Analytics**

Course Code: MDS402

Course Outcomes:

After completion of the course,

Learners will be able to

No	Course Outcome	PO Mapping
CO 1 (Remember)	describe the basic concepts of social network.	PO-1, PO-2, PO-4
CO 2 (Understanding)	compare the networks to find prominent actors and relate social network models.	PO-2, PO-3, PO-4
CO 3 (Applying)	demonstrate social network applications using tools and techniques.	PO-2, PO-3, PO-4
CO 4 (Analysing)	analyze the communities in social networks.	PO-2, PO-3, PO-4
CO 5 (Evaluating)	evaluate information available on the web model and build Social Network Application.	PO-2, PO-4, PO-3
CO 6 (Creating)	Design a system to harvest information available on the web model and build Social Network Application.	PO-2, PO-4, PO-5

**Program: M.Sc. (Data Science)**

**Year: Part II**

**Semester: IV**

**Course: Data Storage and Management**

Course Code: MDS403

Course Outcomes:

After completion of the course,

Learners will be able to

No	Course Outcome	PO Mapping
CO 1 (Remember)	identify the importance of a data center and storage architecture.	PO-2, PO-3, PO-4
CO 2 (Understanding)	explain types and characteristics of content storage.	PO-2, PO-3, PO-4
CO 3 (Applying)	Apply principles of data storage and management using different tools and techniques.	PO-2, PO-3, PO-4
CO 4 (Analysing)	analyze various techniques of storage virtualization.	PO-2, PO-3, PO-4
CO 5 (Evaluating)	evaluate various techniques of storage virtualization.	PO-2, PO-3, PO-4, PO-5
CO 6 (Creating)	develop the process of backup and archiving recovery.	PO-2, PO-3, PO-4, PO-5