

**New to Data!  
No Problem.**



# **Data Mining and Discovery**

Data Mining is regarded as the key element of a more general process called Knowledge Discovery that deals with extracting useful knowledge from raw data.

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**Start your data science  
journey with us.**

Basic understanding of Python is required to attend this course.

**A short  
course in  
16 hours.**



## **What You'll Learn**

Data Mining studies algorithms that allow computers to find patterns and regularities in data, perform prediction and forecasting, and generally improve their performance through interaction with data. The process includes data selection, cleaning, coding, using different statistical and machine learning techniques, and visualization of the generated structures. The course provides students with an appreciation of the uses of data mining software in solving business decision problems. Students will gain knowledge of theoretical background to several of the commonly used data mining techniques and will learn about the application of data mining as well as acquiring practical skills in the use of data mining algorithms.

**Learn how you can put your  
data to good use.**

# About the Course

These are the key takeaways that participants will gain:

- Appraise the application of data analytics in a given context
- Recommend appropriate analytics solutions in a given context
- Preparation and visualisation of data for analytical modelling
- Construct analytics models/results as part of solutions to address business problems
- Evaluate the performance of analytics models
- Analyse the results or outputs of analytics models

It's about your goals & your future!

# Course Outline

## Module 1:

To enable learners to have an overall understanding of the landscape of Data Mining and Machine Learning.

- Introduction: Machine Learning and Data Mining
- Supervised and Unsupervised learning techniques

## Module 2:

To give the participants the very first steps towards forming hypothesis and doing predictive analytics, learning some of the classification and regression techniques in supervised learning.

- Machine Learning and Classification
- Classification: Logistic Regression, K-Nearest Neighbour
- Regression: Multiple Linear Regression

## Module 3:

It aims to equip participants with the basics of how supervised machine learning models work and how evaluation and optimization can be carried out.

- Evaluation and Metrics
- Understanding and comparing model results

## Module 4:

To equip learners in understanding some of the preparation and visualisation techniques which are required for knowledge discovery into their data.

- Data Preparation for Knowledge Discovery
- Data Mining and Visualization

## Module 5:

To further equip learners with knowledge on other unsupervised learning techniques, and rule-based mining also be taught.

- Clustering
- Associations Rules



# Join us & launch your career in data science.

It's time to upskill for the Industry 4.0

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