**Meta Title: Bachelor's Degree in Data Science in Jaipur | TGC Jaipur**

**Meta Description: Enroll in the Bachelor's Degree in Data Science at TGC Jaipur. Master data analysis, machine learning, big data, programming, and business analytics with expert instructors and hands-on training.**

### **URL:** [**tgcjaipur.com/courses/bachelor-degree-in-data-science-in-Jaipur**](http://tgcjaipur.com/courses/bachelor-degree-in-data-science-in-Jaipur)

### **Data Science Course at TGC Jaipur**

#### **Introduction to Data Science**

The Data Science Course at TGC Jaipur starts with a solid foundation in data science fundamentals. In this module, you will learn about the evolution of data science, its application in various industries, and its critical role in decision-making.

You'll understand the data collection, cleaning, and analysis process and how data scientists leverage statistical and computational tools to extract meaningful insights. This module provides an overview of the data science workflow and introduces key concepts such as data exploration, visualization, and data-driven decision-making.

**Data Science Course Modules at TGC Jaipur**

#### **Programming for Data Science (Python & R)**

Programming is at the heart of data science, and in this module, you'll gain proficiency in two of the most popular programming languages for data science: Python and R. The module starts with Python and R syntax basics and gradually covers more advanced concepts such as functions, loops, data structures, and object-oriented programming. By the end of the module, you'll be comfortable using Python and R for data manipulation, analysis, and visualization. You'll work with libraries such as Pandas, NumPy, Matplotlib, and ggplot2 to clean and visualize data effectively.

#### **Data Wrangling and Preprocessing**

**Data wrangling is the process of cleaning and preparing data for analysis. This module will teach you how to handle missing data, remove outliers, normalize data, and transform variables. You'll also explore how to work with different types of data such as structured, unstructured, and semi-structured. You'll get hands-on experience in data preprocessing techniques essential for accurate data analysis and machine learning applications. The skills learned here will help you handle real-world datasets and ensure they are ready for meaningful analysis.**

#### **Exploratory Data Analysis (EDA)**

Exploratory Data Analysis (EDA) visually and statistically explores data to uncover patterns, relationships, and insights. This module focuses on key techniques used in EDA, including summary statistics, data visualization, and identifying correlations. You will work with tools like Seaborn, matplotlib, and Plotly to create various plots, such as histograms, scatter plots, and heat maps. By the end of this module, you'll be able to extract valuable insights from any dataset, which is essential for making informed decisions.

#### **Statistical Analysis and Probability**

A deep understanding of statistics is crucial for data scientists. In this module, you will learn the fundamentals of statistics and probability theory, including measures of central tendency, variability, hypothesis testing, and probability distributions. You'll understand how to apply statistical tests to validate hypotheses and assess the significance of data findings. Statistical analysis is essential for working with data, and you'll gain the confidence to perform in-depth statistical evaluations to support your data-driven decisions.

#### **Machine Learning Algorithms**

Machine learning is at the core of data science, and in this module, you will learn about various supervised and unsupervised learning algorithms. The module covers essential algorithms such as linear regression, decision trees, random forests, k-nearest neighbours, support vector machines, and clustering algorithms. You will learn how to apply these algorithms to real-world datasets and evaluate their performance. You'll also explore key concepts like overfitting, bias-variance trade-off, and model evaluation using accuracy, precision, recall, and F1 score metrics.

#### **Deep Learning and Neural Networks**

Deep learning is a subfield of machine learning that deals with neural networks and complex architectures. In this module, you will learn how deep learning models work and how they can be used for complex tasks like image recognition, natural language processing, and time series forecasting. You will learn how to build and train neural networks using frameworks such as TensorFlow and Keras. This module also covers key deep learning techniques like convolutional neural networks (CNNs), recurrent neural networks (RNNs), and autoencoders.

#### **Natural Language Processing (NLP)**

Natural Language Processing (NLP) is an important subfield of AI that focuses on the interaction between computers and human language. This module will teach you how to process and analyze text data using tokenization, stemming, lemmatization, and stop-word removal. You will also explore more advanced NLP techniques such as sentiment analysis, named entity recognition (NER), and text classification. By the end of the module, you will be equipped to work with large-scale text data and use NLP to solve real-world problems.

#### **Data Visualization Techniques**

Effective communication of data insights is crucial, and data visualization is a powerful tool. In this module, you will explore advanced data visualization techniques to create interactive and meaningful visualizations. Using tools like Tableau, Power BI, and Plotly, you will learn how to present your analysis visually appealingly, making complex data easier to understand for stakeholders. You'll also gain an understanding of how to design dashboards and reports that communicate your findings clearly and effectively.

#### **Big Data Technologies**

Data science often involves working with large datasets that require specialized tools. This module focuses on Big Data technologies such as Hadoop, Spark, and NoSQL databases. You'll learn how to work with distributed systems and process massive datasets using parallel processing. The course will also cover data storage, querying, management techniques, and real-time data processing frameworks. By the end of the module, you will have the skills necessary to work with big data and process it efficiently using cutting-edge tools.

#### **Data Science for Business Applications**

Data science is widely used in business to improve decision-making and drive growth. In this module, you'll learn how data science can be applied to various business functions such as marketing, finance, and operations. You will work on case studies using data science techniques for customer segmentation, demand forecasting, fraud detection, and more. You'll learn how businesses use data to gain a competitive advantage and make data-driven decisions.

#### **Final Project and Portfolio Development**

The final project allows students to apply everything they've learned throughout the course. You will work on a comprehensive data science project requiring data collection, cleaning, analysis, and model building. The project will be an opportunity to showcase your skills and create a portfolio that highlights your expertise. You will also receive feedback from industry professionals, ensuring that your portfolio meets the standards of potential employers in the data science field.

**Why Choose TGC Jaipur for Data Science Training?**

1. **Comprehensive Curriculum**

Our Data Science program is designed to equip you with various skills, from programming fundamentals to advanced machine learning, big data analytics, and business intelligence. The course curriculum is designed to ensure you have a solid foundation in data manipulation, statistical analysis, predictive modelling, and data visualization, covering all the essential topics needed to thrive in the dynamic field of data science.

1. **Industry Expert Trainers**

At TGC Jaipur, you'll learn from industry experts with hands-on experience working with top companies and real-world data. Our instructors bring practical insights into the classroom, guiding you through complex concepts, providing valuable industry knowledge, and offering personalized feedback on your projects. Their experience will help you understand the practical application of data science techniques, ensuring you're prepared for the challenges in the field.

1. **Practical Experience**

Hands-on experience is crucial for mastering data science. Our course focuses on real-world applications by offering live projects, industry-relevant assignments, and case studies. These projects allow you to work with actual datasets, solve problems, and build a robust portfolio that showcases your skills to potential employers. You'll gain confidence in applying data science methodologies to real business problems.

1. **Cutting-Edge Tools & Software**

Our curriculum is designed to make you proficient in using industry-standard tools essential in data science. You'll work with programming languages like Python and R, explore data visualization tools like Tableau, and dive into machine learning libraries like TensorFlow and scikit-learn. Additionally, you'll get hands-on experience with big data tools such as Hadoop and Spark, widely used in the industry to handle large-scale data. By the end of the course, you will be job-ready with comprehensive tool knowledge.

1. **Job Assistance & Career Guidance**

TGC Jaipur provides 100% placement assistance, including career counselling, resume building, and interview preparation, to help you secure a job in the competitive data science industry. Our team works closely with leading companies in various sectors and offers job referrals, ensuring you have the best opportunities. We aim to help you secure a job that aligns with your career goals and aspirations, whether it be in analytics, machine learning, or business intelligence.

1. **Flexible Learning Options**

We understand that every student has different learning preferences and schedules. TGC Jaipur offers flexible learning options, including weekday, weekend, and online batches to accommodate this. You can choose the schedule that best fits your lifestyle and learning pace. Whether you are a working professional or a full-time student, our learning model ensures you can balance your education with other commitments.

1. **Affordable Fees with Payment Plans**

We believe in making quality education accessible to all. TGC Jaipur offers top-tier Data Science training at competitive fees. To further support students, we provide flexible payment plans that allow you to spread the cost of your education over time, ensuring you can focus on learning without financial stress. We are committed to delivering exceptional value for the price of the program.

1. **Certification & Portfolio Development**

Upon completing the Data Science course, you will receive a recognized certificate from TGC Jaipur that validates your skills and expertise. More importantly, you will have a professional portfolio that showcases your projects, case studies, and real-world applications. This portfolio will be a powerful tool when applying for jobs, as it highlights your hands-on experience and problem-solving abilities, making you highly attractive to potential em

### **Frequently Asked Questions (FAQs)**

1. **What is data science?**

Data science is a field that involves extracting insights and knowledge from structured and unstructured data through statistical analysis, machine learning, and visualization techniques.

1. **Do I need prior experience to enrol?**

No, this course is designed for beginners. You'll start with the basics and gradually progress to advanced topics.

1. **How long is the Data Science course at TGC Jaipur?**

The course duration is typically 3 to 6 months, depending on the chosen batch and learning pace.

1. **Will I receive a certificate after completing the course?**

Upon completing the course, you will receive an industry-recognized certificate from TGC Jaipur.

1. **Do you provide placement assistance?**

Yes, we offer 100% placement assistance, including resume building, interview preparation, and job referrals to leading companies in the data science industry.

1. **What practical experience will I gain?**

You will work on real-world projects, case studies, and industry-based assignments, ensuring you gain hands-on experience and build a strong portfolio.

1. **How do I enrol in the course?**

You can enrol through our website or by contacting our admissions team, who will assist you with the registration process and answer any queries.