
DATA SCIENCE (B.SC.) (in Short)

Data Science encompasses the generation of insights and value from raw data and is the core of digital businesses across all sectors. It's a field that requires a diverse mix of capabilities and skills, and never gets boring. Data informs key decisions, leads to optimisation of existing processes, and is the enabler of entirely new business models via data insights and automation. When you take a bachelor's degree in data science you join the data revolution that is leading major changes in businesses, economies, and societies today.

BSc Data Science is a 3 year full-time course that comes under the domains of Computer Science, Business Analytics and Artificial Intelligence.

Data Science is an interdisciplinary subject that includes the use of **Statistics, Big Data Analytics, Machine Learning** and related aspects in order to understand the problem or phenomena with respect to a set of real-world data.

This course is highly popular among students in India and Abroad because of its increasingly high demand and diverse future scope in tech companies, consultancies, market research companies and energy sector.

Admission to this course usually takes place on the basis of merit and performance in the university level Common Entrance Tests. **The minimum eligibility required is the completion of Class 12 with Science stream (Physics, Chemistry, Mathematics).**

Currently, GNIT is offering this course, whose course curriculum is approved by UGC. Major BSc Data Science subjects include **Machine Learning, Cloud Computing, Data Visualizations, Python Programming, Operating Systems** and others.

In terms of career, this is considered one of the trendiest and most promising courses of 2021 and many students are attracted to this interdisciplinary program.

You will not only learn about Big Data Analytics, but also get to study the related subjects which will enhance your skills and knowledge to become a great **Data Scientist**.

Average Starting Salary can be expected around INR 5-8 LPA, but after working on various projects and getting ample experience, you can earn as high as INR 16 LPA in reputed companies such as MuSigma, Publicis Sapient, Amazon, Accenture, E&Y, TCS, Cognizant and others.

BSc Data Science Admission Process

Admission to this course depends upon to the Entrance Test. GNIT conduct Common Entrance Test (CET) for their admission process. After this, a Personal Interview also takes place to know the interest and capability of the candidate.

GNIT take admission on the basis of merit (Class XII marks) and the performance in the Written Test or Personal Interview.

BSc Data Science: About the Course

Data Science:

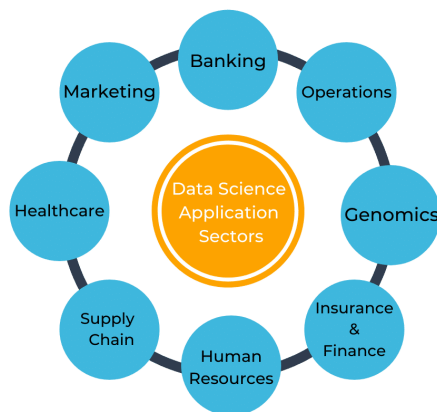
- is an interdisciplinary subject that uses the basic concepts of statistics, data analysis, machine learning and related subjects to understand and analyze various problems and phenomena with respect to a large set of data.
- includes various theories, techniques and tools from mathematics, statistics, computer science and information technology.

BSc Data Science is offered with the aim of:

- exposing students to broad areas and subjects of Applied Statistics, Data Mining, Predictive Modelling, Big Data Analytics, Machine Learning, Data Visualization across various sectors such as Business, Marketing, Supply Chain, Manufacturing, Operations, Human Resources, Genomics, Healthcare, Banking etc. using hands-on experience.
- producing agile and skilled professionals to understand, collect, extract, analyze and predict the given set of data to solve the major problems through real-time data analysis.

BSc Data Science Course Objectives:

- This 3-year course is designed in such a way that graduates can perform and conduct data-driven investigations by managing and visualizing all types of data.
- Students will understand the concept and develop an in-depth understanding of data science and data analytics.
- Teach students the basic techniques and procedures to analyze quantitative and qualitative data to arrive at solutions by identifying the pattern, predict trends and analyze data sets from different sectors



BSc Data Science Course Highlights

Full Form	Bachelor of Science in Data Science
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Course Level	Undergraduate
Duration	3 years
Eligibility	Completed Class 12 with Science from a recognized board
Admission Process	Through _____ conducted at University Level.
Exam Type	Semester Wise
Course Fees	Under _____ Lakhs
Average Starting Salary	INR 5-7 LPA
Top Recruiting Companies	Cartesian Consulting, Publicis Sapient, Tredence Inc., Wipro Ltd., Oracle, Accenture, MuSigma, IBM, Amazon, TEG Analytics, Deloitte, HCL, GlobalAnalytics, etc.
Top Job Positions	Data Scientist, Business Analyst, Data Analyst, Data Engineer, Data Architect, Data Mining Engineer, Research Analyst, Business Intelligence Analyst, Analytics Manager and many more
Higher Education Opportunities	MSc in Data Analytics, Software Engineering, Statistics, Cyber Security, etc. MBA in Business Analytics, E-Business, Data Analytics

Why study BSc Data Science?

If you are genuinely interested to study Data Science and its various aspects, then **BSc Data Science** is a perfect course for you.

Skills and Knowledge:

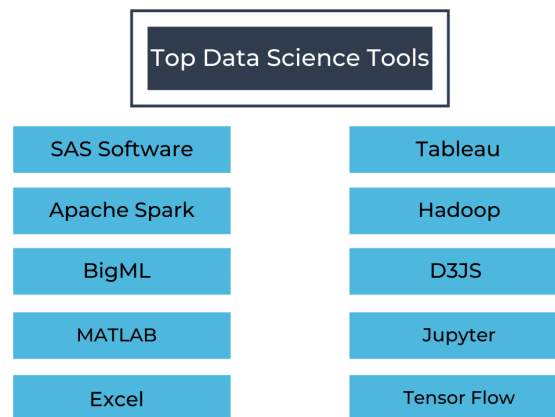
- This course imparts the skills required to study, analyze and predict solutions across various sectors like manufacturing, healthcare, banking, finance, marketing, business strategies, etc.
- After completion of this course, you will be able to deal with large sets of data and you will become an expert in programming, machine learning, data wrangling, data intuition, software engineering, data visualization, etc.
- Core programming languages include **Java, SQL, Python, R, SAS, Scala, Julia, MATLAB**, along with the knowledge of **Tableau, Hadoop**, and other tools.

Huge Demand:

- As stated earlier also, data science is one of the **trendiest jobs across the globe** in terms of future scope and career stability.
- Currently, there are more than 2 Lakhs job openings related to this field of study. It is estimated that there will be an increase of at least 40-45% each year in job opportunities in this domain.
- After US, India is next into becoming the analytics hub of the world with over

Salary:

- The national average salary of a Data Scientist is around **INR 8.1 LPA**, and with time, it can go upto INR 20 LPA within 5-10 years with enough experience.
- The minimum percentage hike for professionals in data science domain is at least 30-40% and it can go as high as 60-70% in well-reputed companies such as Amazon, Deloitte, Publicis Sapient, Cognizant, and others.



Course Comparison

Data Science undergraduate course is offered in the form of **BCA Data Science**, **BSc Data Science** and **B. Tech Data Science**.

Below table shows, major differences between them:

Parameters	BCA Data Science	BSc Data Science	B.Tech Data Science
Qualification	Bachelor of Computer Applications in Data Science	Bachelor of Science in Data Science	Bachelor of Technology in Data Science
Duration	3 years	3 years	4 years
Eligibility	Completed Class 12 in any stream, but most of the colleges prefer students from Computer Science background	Completed Class 12 with Physics, Chemistry and Mathematics	Completed Class 12 with Physics, Chemistry and Mathematics

Course Overview	This course includes all the aspects of computer applications like software programming, language studies, along with the study and application of data science subjects.	This course is an interdisciplinary course which takes you through subjects of software engineering, machine learning, big data analytics and artificial intelligence.	This is an engineering course that focusses more on the application and technical aspect of software engineering and data science.
Course Objectives	The main objective of this course is to enable students to be an expert in fundamental computer application subjects including both software and hardware studies, along with core data science subjects such as Machine Learning, Applied Statistics, Programming, etc.	The main objective of this course is to provide both theoretical and practical knowledge in the field and subfields of data science. The curriculum is based on the basic computer science studies incorporated with advance data science fields and its applications.	The main objective of this course is to provide knowledge in three major areas such as mathematical expertise, technology, hacking skills and business strategy by the use of large data sets.
Average Total Fees	Under 3 Lakhs	Under 6 Lakhs	Under 8 Lakhs

The career options and job prospects remain the same in all these courses since the specialization is same, therefore you can opt any of these courses basis your interest and eligibility to make a career in data science field.

BSc Data Science Jobs and Career Options

Data Science is considered one of the top 50 trendiest jobs in the world. Therefore, today is the right time to pursue this specialized course teaching you various aspects of data collection, data extractions, data analyses, data mining, data visualization, etc across diverse sectors of business, healthcare, logistics, banking and others.

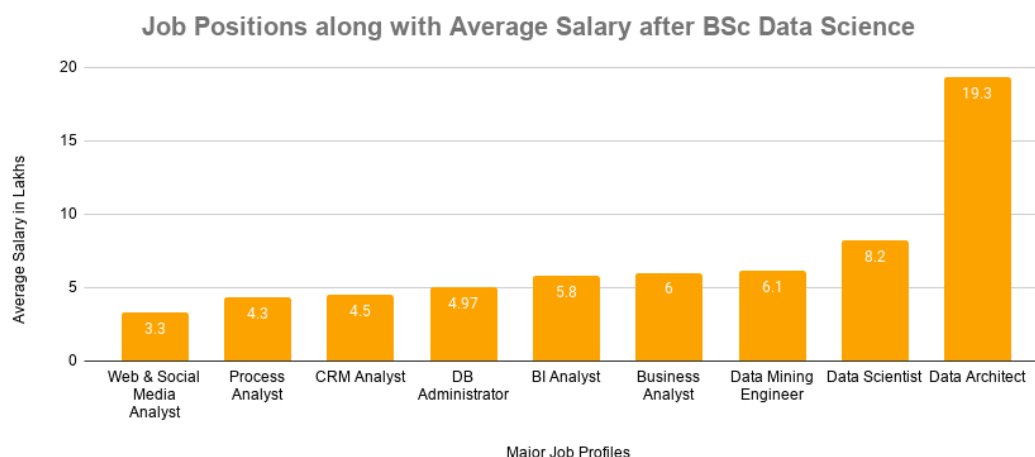
- According to LinkedIn, Data Science is the **future of business** and **e-commerce world**.
- You not only can earn a **higher salary** and get a **stable career**, but you can also explore and learn different techniques and technologies involved in the process.
- Most of the engineers these days want to learn the basics of data science to learn and **apply analysis in different types of data** and **extract valuable information** from it.
- Around **40% increase** in jobs have in data science from 2017 to 2019, and it is expected to increase in this rate, creating more than **2 Lakhs** job opportunities by the year 2021.

The following table shows some of the major job positions you can get after completing this course.

Have a look below:

Job Position	Description	Average Salary
Data Scientist	A Data Scientist has a major role to play in a Business or solving a problem. Their main role is to provide insightful information and values from a certain set of data after carefully going through the major steps of data science, and suggesting solutions to those problems or doubts.	INR 8.2 LPA
Process Analyst	A process Analyst is an important part of the IT team where he/she analyze the business processes and workflows in order to understand the business pattern and make sure that how these can be automated or increased.	INR 4.3 LPA
Data Solutions Analyst	Data Solutions Analyst usually maintain client-specific data along with useful reports with respect to company policies and procedures. They gather and collect information from the clients, maintain the data warehouse, follow the automated report production process and provide recommendations in case of any negative outcome or result.	INR 11.51 LPA
Business Analyst	A Business Analyst is supposed to analyze the business-related data and provide help in decision making with respect to many new business trends from the technical point of view.	INR 6 LPA
Statistical Analyst	A Statistical Analyst is responsible for collecting, reviewing and extracting valuable information from the data which will further help Business Analysts and Data Scientists in the real-time decision making process.	INR 6.02 LPA
Web & Social Media Analyst	Web & Social Media Analyst is responsible for the evaluation and analyzing user engagement with the help of various software and data structure tools.	INR 3.3 LPA
CRM Analyst	They are responsible for the evaluation of the client-related data provided internally or externally to know their behavior, their pattern and extracting insightful information from it which will help to maintain the relationship with clients by understanding their problem and resolving them on a macro scale.	INR 4.5 LPA
Business Intelligence Analyst	BI Analyst is responsible for transforming a large set of data into valuable information that will hold a business value. They analyze the latest trends and help make the business grow in a smarter and in a much efficient way.	INR 5.8 LPA
Data Architect	A Data Architect is responsible for everything about the company data. They maintain the solid structural database of the company containing all the necessary information. They create database solutions, evaluate requirements and prepare reports.	INR 19.3 LPA
Data Mining Engineer	Data Mining Engineer is responsible for creating and enhancing the statistical and predictive data and models and algorithms to analyze a large set of data.	INR 6.1 LPA
Database Administrator	A DB Administrator is responsible for planning, installing, designing, migrating, monitoring the data by using different softwares and tools.	INR 4.97 LPA

Salary Trend Graph



BSc Data Science Future Scope

Data Science is a promising subject in the field of Computer and Information Science. Many foreign companies and national companies are investing in millions in the IT sector in India.

After US, India is expected to be a specialized market for Data Scientists across the globe. This course is not only valuable in India but across the globe. The National Average Salary for Data Scientist is around **INR 11,48,252** and International Average Salary is around **USD 113,436** according to Glassdoor, which means you can easily satisfy your need for career growth and stability.

- **Higher Education:**

You can go for higher studies in this advanced field to gain expertise and knowledge in various data science field. You can become study a specialization also like data analytics or business analytics as per your career need. You can pursue Master of Science in these specializations:

MSc Data Analytics	MSc Software Engineering	MSc Computer Science
MSc Statistics	MSc Cyber Security	Master of Computer Applications

If you are interested in pursuing a managerial role in this domain then you can pursue Master of Business Administration (MBA) as well in specializations such as:

MBA Business Analytics	MBA E-Business
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- **International Opportunities:**

US is considered the IT hub of the world, and the scope of Data Science is enormous and growing rapidly. There is a huge need for skillful data scientists across the world. Therefore, after gaining ample experience in various project work, you can be considered for diverse international projects in marketing, healthcare, banking and other areas.

You can be hired for different roles like Team Lead, Project Lead or on a manager position. Major international companies like Amazon, Cognizant, Deloitte, Publicis Sapien, E&Y, among others send skillful professionals to US, Canada, Germany and other countries. After gaining experience in handling projects at a large scale, you can have the opportunity to grow your career in these technologically advanced countries.