Programme: B.Sc Honours (Data Analytics)

BSc Honours (Data Analytics) is a four-year undergraduate course that deals with math and statistics, specialized programming, advanced analytics, Artificial Intelligence (AI), and machine learning with specific subject matter expertise to uncover actionable insights hidden in an organization's data. These insights can be used to guide decision making and strategic planning. BSc Honours (Data Analytics) aims at teaching graduates essential topics such as Mathematics, Statistics, Computer Science, and also Business Knowledge etc. BSc Honours (Data Analytics) duration is divided into six semesters, and each BSc Data Analytics syllabus for each semester comprises theory and practical examinations.

After completing B.Sc. Data Analytics, graduates have the scope of getting the jobs in different areas. The have an opportunity to become a Computer Science IT Professional who deals with applications of Computers in Business areas. They have opportunity to become a part of statistical analysis and implementing the smart way in business for taking smart decisions fast.
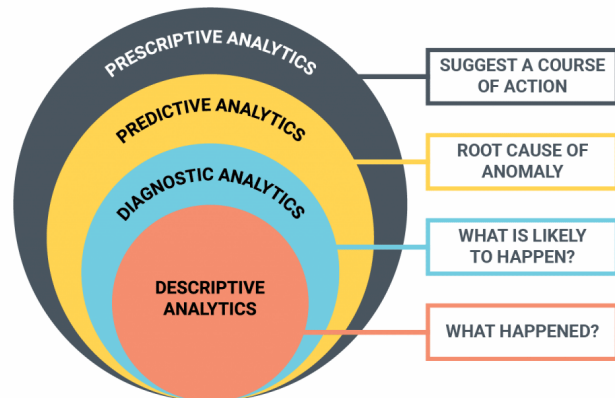
B.Sc. Honours (Data Analytics): Eligibility and Syllabus

Since this degree engulfs all the latest subjects related to Data analytics, it becomes one of the most remunerative academic degrees. To give you a full insight into the degree and the related subjects, we have prepared a complete list of the cognate subjects which are usually included in the academic curriculum of B.Sc. Honours (Data Analytics).

- Basics of Computing
- Python Programming
- Mathematical Foundation for Data Analytics
- Database Management System
- Data Collection and Handling
- Visualization and Storytelling with Data
- Fundamentals of Excel
- Advance Excel
- Data Structure and Algorithm
- Elements of Business Object Oriented Programming using Python
- Neural Networks
- Basics of Economics (Fundamentals of Macro- and Microeconomics)
- Natural Language Processing
- Statistics for Data Analytics
- Advanced Machine Learning
- Web Design Fundamentals

# What is BSc Honours (Data Analytics)? Course Details

BSc Honours (Data Analytics) is a three-year undergraduate course that aims to teach about the Mathematics, Statistics and Computer Science where Statistics is used to interpret the behaviour of data in the existing markets of business and predict the future of improving the business in smart way and applying the mathematical knowledge for simplifying the task etc. The course requires you to have high reasoning and problem-solving abilities. The course is offered by some of the top colleges in the country. This is the most advancing course where a student is able to gain knowledge in multiple domains and have creative ideas to implement which shows the evergreen course among all other courses.

Why Opt for BSc Honours (Data Analytics)?

Mathematics is the area which gives solution to a problem in a simple way. Statistics is the analysis of the exiting data and interpretation of the behaviour of the data. Implementing mathematics and statistics in computer application development improves the logical and creative mind of the Student. A student with mathematics interest is suggested to opt this course where he can have different opportunities as statistician, computer software developer , business analyst and also create his own space in the market with his creative thinking. It opens the door to the most exciting and rewarding jobs in the world. The overall employment is expected to increase in the coming years.

The course syllabus is focused on both fundamentals of the mathematics, statistics and computer science, which gives the graduates a strong foundation for further studies. For example, the course focuses on different domains and implementing them in the society.

Once graduation is complete, students can get jobs in many fields. Due to the increasing technological advancement, there is always scope in the field of Computer Science. Students can get jobs as researchers, Data Analyst, Data Engineer, Business Intelligence Developer, etc.
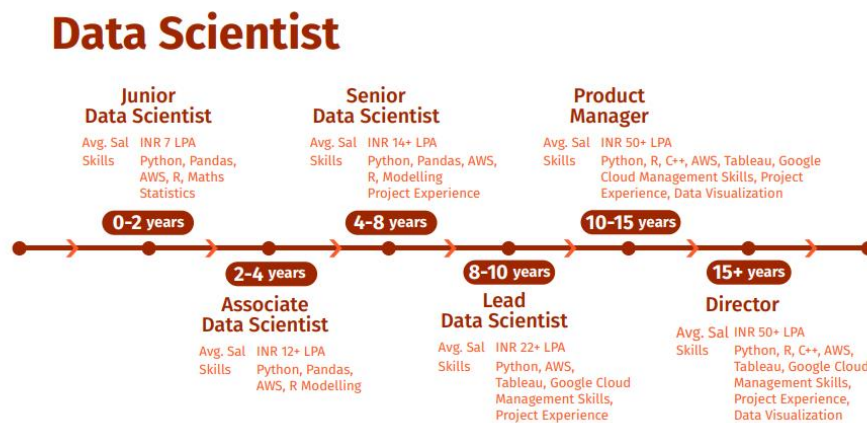
Who Should Opt for BSc Honours (Data Analytics)?

- Students must have strong foundation in mathematics to become a successful Data Analyst. Understanding niches like liner algebra, calculus.
- Statistics and Probability will help develop the foundation for this field. It would also help if you acquired detailed knowledge regarding the terminologies used in this field.
- Mastering these skills will prove to be quite effective for developing data analysis estimates. The student can learn these skills in advanced high school mathematics and Data Analytics courses
- Students should have logical and creative thinking to have a career in Data Analytics. For this they should have familiarity in programming skills.
- After completion of class 12, many students find interest in the field of engineering. BSc Honours in Data Analytics opens a new avenue for such students to explore equal opportunities as in Engineering.
- A student who decides to pursue this field must have a logical approach. High reasoning skills and the ability to deal with complex problems are also some of the required traits for students who want to

pursue this field. The student must be creative and show interest in learning process.

After BSc Honours (Data Analytics): Scope in India

The graduates can complete their studies or decide to get a job once their graduation is complete. The demand for Data Analytics professionals these days is tremendous, and you will find no shortage of opportunities in the current job market Many students choose to do an MS degree in different fields or get jobs as researchers, Data Analysits, Data Engineers etc.

Courses after BSc Honours (Data Analytics)

After completing a bachelor's course in Data Analytics, many students decide to continue their studies further as it increases the chances of getting better jobs. Thus, students can do master's in a specific field of Computer Science or go for different degrees.

In addition, students can decide to do an MSc for advanced knowledge on the subject and later on opt for PhD programs to become a professor of Computer Science. For a quick career growth after BSc Data Analytics with MBA is a good choice to settle in Business as Manufacturing companies or service organisations where a quick decision are taken to improve the business with creative ideas.
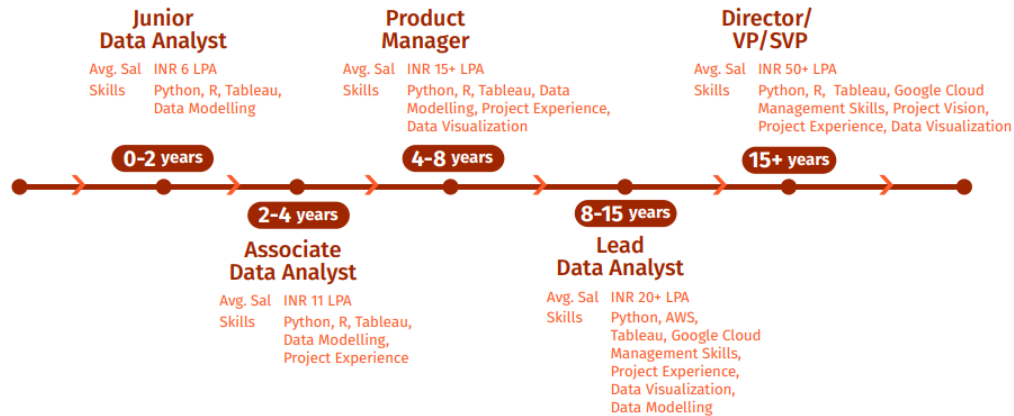
What to Do After BSc Honours (Data Analytics)

After completing the B.SC course, graduates can get jobs in both the private and public sectors. For example, the graduates can get jobs with IT Area, Managerial positions, Data Analysts, Statisticians etc.,

BSc Data Analytics: Jobs and Salary

Business Intelligence Developer

BI Developer	**HOD/Team Lead**	**Director/ VP/SVP**
Avg. Sal INR 7 LPA	Avg. Sal INR 20+ LPA	Avg. Sal INR 40+ LPA
Skills Hadoop, Python	Skills Python or R Programming, Data Modelling, Notebook, Visualization/BI	Skills Python or R programming, Data modelling, Creative Models, Notebook, Github, Business Acumen, Visualization/BI

0-4 years   8-10 years   15+ years

4-8 years   10-15 years

Senior BI	**Product Manager**
Avg. Sal INR 12 LPA	Avg. Sal INR 20+ LPA
Skills Python or R Programming, Notebook, Github	Skills Python or R Programming, Data Modelling, Creative Models, Notebook, Github, Visualization/BI

Data Analyst

	Junior Data Analyst	Associate Data Analyst	Product Manager	Lead Data Analyst	Director/ VP/SVP
	0-2 years	**2-4 years**	**4-8 years**	**8-15 years**	**15+ years**
Avg. Sal	INR 6 LPA	INR 11 LPA	INR 15+ LPA	INR 20+ LPA	INR 50+ LPA
Skills	Python, R, Tableau, Data Modelling	Python, R, Tableau, Data Modelling, Project Experience	Python, R, Tableau, Data Modelling, Project Experience, Data Visualization	Python, AWS, Tableau, Google Cloud Management Skills, Project Experience, Data Visualization, Data Modelling	Python, R, Tableau, Google Cloud Management Skills, Project Vision, Project Experience, Data Visualization

Data Science/Analytics - Top Recruiters in India

More and more industries are becoming aware of the plethora of advantages that Data Analytics offers. Because of this, the demand for Data Analytics experts has been rapidly increasing since the past decade. Business Intelligence professionals, data analysts, and data visualizers are just some of the names people use instead of Data Analysts.

Data Analysts in the healthcare sector know all about Python, Machine Learning, Statistics, and so on. Needless to say, you will need to work on your data mining to become a valuable asset to the healthcare sector.

Different areas of getting opportunity

- **Health Care**: Predicting the Disease stage before consulting the Doctor.
- **Insurance**: In order to become a data expert in this field, you will need to acquire knowledge about how financial domains work along with information about profitability, portfolio management, risk analysis, and so on.
- **Banking**
- **Finance**
- **Education**: Several educational institutions utilize Data Analytics for reducing dropout rates, understanding educational issues, and much more.
- **Utilities and Energy**: Data Analytics also helps avoid power outages, improve productivity, avoid accidents, and much more.

- **Communication and Media**: Media giants like Netflix, Amazon Prime and YouTube were among the first in implementing Data Analytics and taking full advantage of it.
- **Retail**: Improving relevance and personalization helps the customer centric retail industry comprehend the buyer's patterns and behaviours by utilizing data
- Manufacturing Data Analytics has been quickly becoming crucial for manufacturers in the present day, as it offers loads of benefits. If you aspire to have a lengthy career as a Data Scientist, opting for the manufacturing industry would be a great idea.

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
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 maintains 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 analyse 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 analysing user engagement with the help of various software and data structure tools.	INR 3.3 LPA
CRM	They are responsible for the evaluation of the client-	INR 4.5

Analyst	related data provided internally or externally to know their behaviour, 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.	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 analyse the latest trends and help make the business grow in a smarter and in a much efficient way.	INR 5.8 LPA

B.Sc Honours (Data Analytics) Admission Process

Admissions to B.Sc Honours (Data Analytics) are done on the basis of merit. The government of Andhra Pradesh notifies the admission process and asks registration for convener quota of 35 seats. The remaining 15 seats will be in management quota. For management quota consult the college office or use chat bot for enquiry.

B.Sc Honours (Data Analytics) Eligibility

Students who wish to pursue B.Sc Honours (Data Analytics) courses should fulfil the following eligibility criteria in order to get through colleges offering B.Sc Honours (Data Analytics) course,

- Students should clear class 12th board exams with MPC/BiPC.
- They should clear their class 12th board exams from a recognized board

Proposed Minor courses

Computer science/ Statistics/Mathematics