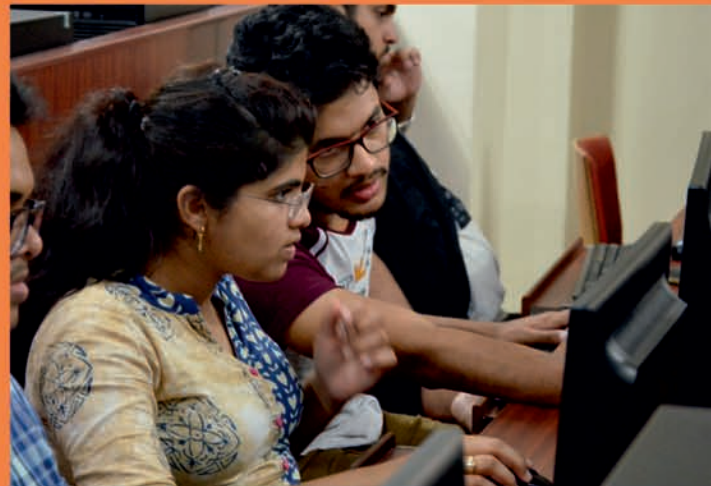


# B.Sc

2021-24  
in  
Data Analytics



- Free Laptops for all the students
- Supply of free textbooks throughout the program for all students



IcfaiTech, a constituent of ICFAI Foundation for Higher Education (IFHE), Hyderabad introduced three-year B.Sc. Degree in Data Analytics from the academic year 2021-22. The candidates who have completed Class 12 with mathematics as one of the subjects are eligible for admission into the program. With the multiple entry and exit options, the candidates can enter at any level if they fulfil the prerequisites for those courses from other Institutes.

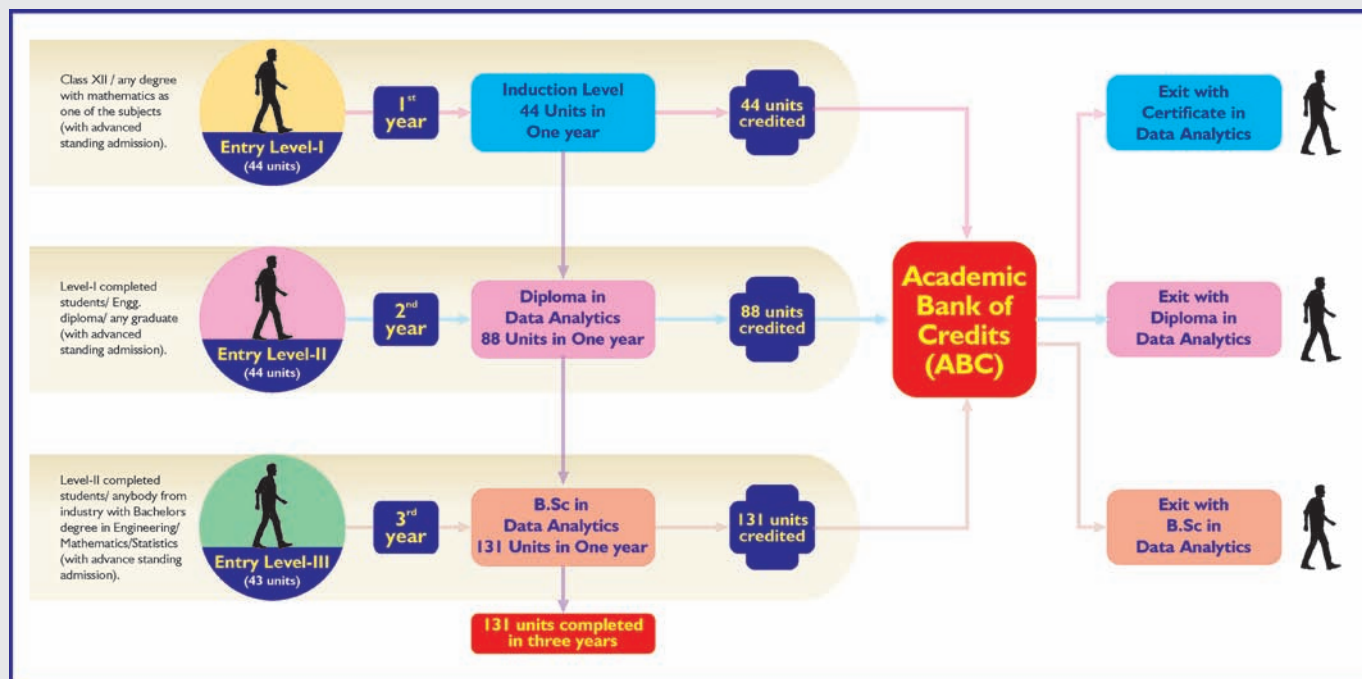
## Objective

To provide amenable learning platform on Data Science / Analytics and facilitate the learner with multiple entry and exit options. At each exit level of the program, the candidates will be equipped with skills to take up challenging industry problems in the domain of Data Science.

## Structure

The course structure consists of six semesters

- a) Certificate in Data Analytics
- b) Diploma in Data Analytics
- c) B.Sc in Data Analytics



A candidate is eligible to earn a Certificate in Data Analytics by entering at Entry Level I and Exit at Level I. A Diploma is awarded for a candidate who exits at Level II and B.Sc Data Analytics degree is awarded for a candidate who is exiting through Exit Level III. A candidate can enter any level of the program based on their qualification. An equivalence committee of IcfaiTech will map the courses completed by the candidate and decides the number of units required to get either a Certificate, Diploma or B.Sc Degree. Those who are entering in higher entry level, a suitable program chart is created for these candidates to manage their units and **Academic Banking Credits (ABC)**.

**B.Sc. (Data Analytics) Program Structure  
Semester-wise pattern**

	Course code	Semester I	L P U	Course code	Semester II	L P U	
Year I (Induction level)	EGL111	English Language Skills	3 0 3	EGL121	Professional Communication	3 0 3	
	MATH112	Linear Algebra	3 0 3	MATH122	Higher Calculus	3 0 3	
	MATH113	Differential Equations and Fourier series	3 0 3	MATH123	Probability & Statistics	3 0 3	
	DAC114	Programming in C	2 2 3	DAC124	Data Operations	2 2 3	
	DAC115	Foundation of Data Analytics	3 0 3	DAC125	Applied data analytics using Python	3 0 3	
	DAC116	Introduction to FinTech	3 0 3	ME126	Thermodynamics*	3 0 3	
	Total No of Units			18	Total No of Units		
<b>INTERNSHIP (3 months) 5+3 Units = 18+18+8 = 44</b>							
Year II (Diploma level)	<b>Semester III</b>			<b>Semester IV</b>			
	DAC211	Object Oriented Programming using C++	2 2 3	DAC221	Enterprise JAVA applications	2 2 3	
	DAC212	Data Wrangling	3 0 3	DAC222	Data Structures	3 0 3	
	DAC213	Data Base Management System	3 0 3	MATH223	Optimization techniques	3 0 3	
	DAC214	Discrete structures for computer science	3 0 3	DAC224	Data Visualization in Data Science	3 0 3	
	MATH215	Complex variables	3 0 3	DAC225	Machine Learning	2 2 3	
	DAC216	Operating systems	3 0 3	DAC226	Data warehousing and mining	3 0 3	
Total No of Units			18	Total No of Units			18
<b>INTERNSHIP (3 months) 5+3 Units= 18+18+8 = 44</b>							
Year III (Degree level)	<b>Semester V</b>			<b>Semester VI</b>			
	MATH311	Numerical methods	3 0 3	DAC321	Software Project Management	4 0 4	
		Electives (3)	3 0 3		Electives (3)	3 0 3	
		Humanities Elective (I)	3 0 3		Humanities Elective (I)	3 0 3	
	CP-I	Capstone Project-I (TIC)	6	CP-II	Capstone Project-II (TIC)	6	
Total No of Units			21	Total No of Units			22
						Total Credits (Units)	131

**Proposed Electives**

Course code	Name of the course	L P U	Course code	Name of the course	L P U
CS401	Database Administration	3 0 3	CS418	Advanced Computer Architecture	3 0 3
CS402	SQL & DB Applications	3 0 3	CS419	Multicore Architecture	3 0 3
CS403	Database Security & Privacy	3 0 3	DS402	System for Data Analytics	3 0 3
CS404	Wireless Networks	3 0 3	DS404	Big Data Systems	3 0 3
CS405	Network Administration	3 0 3	DS405	Real Time Analytics	3 0 3
CS406	Network Security	3 0 3	DS407	Soft Computing	3 0 3
CS408	Advanced JAVA	3 0 3	DS408	Human Computer Interaction	3 0 3
CS409	Mobile Application Development	3 0 3	DS409	Computer Vision	3 0 3
CS410	Scripting Languages	3 0 3	DS410	Distributed Cloud Computing	3 0 3
CS411	Web Enabled Technologies	3 0 3	DS411	Internet of Things	3 0 3
CS412	Computer Graphics	3 0 3	DS412	Security & Privacy in Cloud Computing	3 0 3
CS413	Software Engineering	3 0 3	DS413	Cloud Administration	3 0 3
CS414	Service Oriented Architecture	3 0 3	DS414	Fundamentals of Blockchain Technology.	3 0 3
CS415	Object Oriented Analysis & Design	3 0 3	DS415	Ethereum & Solidity Programming Essentials	3 0 3
CS416	Software Testing Methodologies	3 0 3	DS416	Blockchain with Artificial Intelligence	3 0 3
CS417	High Performance Computing	3 0 3	DS417	Blockchain with IoT	3 0 3

The total units required at each level are 44 (Certificate in Data Analytics), 88 (Diploma in Data Analytics) and 131 (B.Sc. in Data Analytics). Thus, it is imperative that to earn B.Sc. in Data Analytics, one has to successfully complete 131 (44+44+43) units.

## Job Opportunities

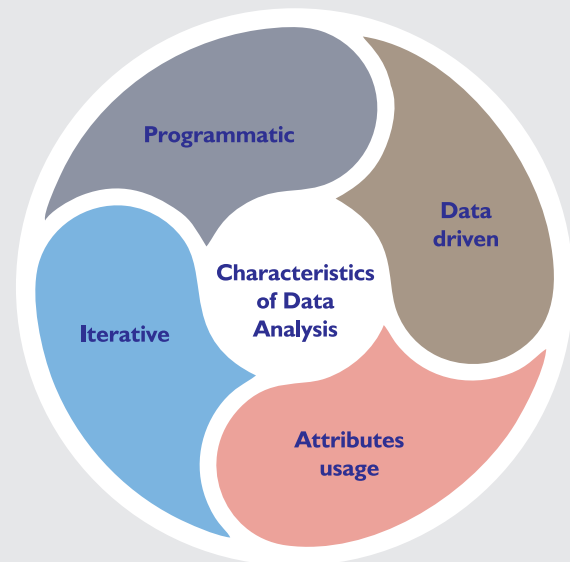
The B.Sc (Data Analytics) will make the candidates skilful to solve the Industry on statistical analysis and computational tools (Python, R, Tableau for Data Visualization etc). Candidates who successfully complete the B.Sc program in Data Analytics can pursue careers in the following fields:

- Data Scientists
- Data Analysts
- Data Architect
- Data Engineer
- Data Analytics Consultant

## Learning Outcomes

Upon completion of the 3 year B.Sc. in Data Analytics, student will:

- Attain strong mathematical skills in algebra, calculus and statistics
- Understand basics in Data Analytics
- Acquire ability to identify and interpret the patterns in the Data
- Get hands-on experience in computational tools and its relationship to the Data
- Make ethical decision-making advices to industries and organizations
- Get hands-on experience during Data Analytics course by undertaking projects and internships.
- Get hands-on experience in Predictive Data Analytics and Data Visualization



## Admission Calendar 2021

Phase-I Admission

Phase-II Admission

**ATIT Dates**

12 to 20 April, 2021

12 to 20 June, 2021

**Finalization**

23 to 25 April, 2021

23 to 25 June, 2021

**Reporting to Campus**

31 May, 2021

30 July, 2021

## Fee structure

Program	Program Fee (₹) per Semester	Total Program Fee (₹)
I year (Certificate in Data Analytics)	50,000	1,00,000
II year (Diploma in Data Analytics)	50,000	1,00,000
III year (B.Sc in Data Analytics)	50,000	1,00,000
Total Fee (includes Admission Fee + ABC Fee + Caution Deposit)		3,50,000#

#Admission fee (Non-refundable): ₹ 20,000; Academic Bank of Credits (ABC) Fee (Non-refundable): ₹ 20,000  
Caution deposit of ₹10,000 along with the first semester fee. (Refundable at the end of the program).

The ATIT 2021 is conducted for all the programmes offered by IcfaiTech Hyderabad and the table shows the scholarship scheme for all the programs offered by IcfaiTech Hyderabad. The ATIT 2021 for B.Sc Data Analytics will be on Mathematics, Verbal ability and Logical reasoning and will not cover Physics and Chemistry.

## Merit Scholarship based on ATIT 2021

S.No.	Rank holders	% amount of scholarship for the first semester
1.	Top 25 students (1-25)	100% of program fee of the 1 <sup>st</sup> semester
2.	Next 75 students (26-100)	50% of program fee of the 1 <sup>st</sup> semester
3.	Next 100 students (101-200)	25% of program fee of the 1 <sup>st</sup> semester

**Contact: 040-23440967, 9949119906, 9491631910, 8096369224.**

**Admissions Office:** IcfaiTech,

# 65, Nagarjuna Hills, Punjagutta, Hyderabad – 500 082, Telangana State.

**Campus:** Dontanapalli, Shankerpally Road, Hyderabad. **Toll-free 1-800-599-0767**

[www.ifheindia.org/icfaitech](http://www.ifheindia.org/icfaitech)