

## BS DATA SCIENCE (BSDS)

A Bachelor's degree in Data Science is an undergraduate program that focuses on preparing students for a career in the rapidly growing field of data analysis and interpretation. The program typically covers a range of topics such as statistics, programming, database management, data mining, machine learning, and data visualization. Students will develop a deep understanding of how to collect, organize, and analyze large amounts of data to identify patterns and insights that can drive business decisions. Graduates with a Bachelor's degree in Data Science are equipped with the skills and knowledge needed to work as data analysts, data scientists, business analysts, or database managers in various industries.

### Duration:

8 Semesters (4 Years)

### Eligibility:

The minimum requirements for admission in a Bachelor degree program in Data Science, is at least 50% or above marks in Intermediate (HSSC) examination with Mathematics or equivalent qualification. The candidates for BS Data Science with at least 50% or above marks in Intermediate with Pre-Medical background (without Mathematics) will be required to pass deficiency courses of Mathematics

of 6 credit hours within one year of their regular studies.

### Admission Criteria:

Academic Qualification	60%
Test / Interview	40%

### Class Timings:

(Monday – Friday)

### Scholarships:

Talent & need based scholarship (upto 100% on tuition fee)

### Degree Completion:

For award of BS degree, a student must have:

- Passed courses totaling at least 134 credit hours, including six credit hours of Final Year Project.
- Obtained a CGPA of 2.0 or more.

### Study Plan for BS (Data Science)

4-Year Program (8 Regular Semesters of 18 weeks each)



## Study Plan for BS (Data Science)

Semester 1	Semester 2	Semester 3	Semester 4	Semester 5	Semester 6	Semester 7	Semester 8
16 Credit Hrs.	17 Credit Hrs.	18 Credit Hrs.	17 Credit Hrs.2	17 Credit Hrs.	18 Credit Hrs.	18 Credit Hrs.	11 Credit Hrs.
Programming Fundamentals (3+1)	Object Oriented Programming (3+1)	Data Structures (3+1)	Analysis of Algorithms (3)	Operating Systems (2+1)	Computer Networks (2+1)	Final Year Project-I (3)	Final Year Project-II (3)
Discrete Structures (3)	Digital Logic Design (2+1)	Computer Organization and Assembly Language (2+1)	Database Systems (3+1)	Data Warehousing & Business Intelligence (2+1)	Data Visualization (2+1)	Introduction to Hadith & Seerah (2)	Professional Practices (2)
Functional English (3)	Ideology and Constitution of Pakistan (2)	Multivariable Calculus (3)	Software Engineering (3)	Parallel & Distributed Computing (2+1)	Data Mining (2+1)	Civics and Community Engagement (Family Life in 21st Century) (2)	Domain Elective 6
Applied Physics (2+1)	Calculus and Analytic Geometry (3)	Introduction to Data Science (2+1)	Linear Algebra (3)	Domain Elective 1	Domain Elective 2	Domain Elective 4	Domain Elective 7
Application of Information & Communication Technologies (2+1)	Expository Writing (3)	Artificial Intelligence (2+1)	Advance Statistics (2+1)	Technical & Business Writing (3)	Domain Elective 3	Domain Elective 5	Social Sciences (2)
	Probability & Statistics (3)	Islamic Studies (2)	Introduction to Basic Teachings of Quran (2)	Information Security (2+1)	Entrepreneurship (2)	Elective Supporting Courses (3)	
Computing Core	Mathematics & Supporting	General Education Requirement	Elective Supporting Courses	Domain Core	Domain Elective		<b>134</b>
46 Credit Hrs.	12 Credit Hrs.	34 Credit Hrs.	3 Credit Hrs.	18 Credit Hrs.	21 Credit Hrs.		

