

**Maulana Abul Kalam Azad University of Technology, West Bengal
(Formerly known as West Bengal University of Technology)**

Syllabus of *B.Sc. in Data Science*

Effective from academic session 2023-2024

Model curriculum structure for 4-year B.Sc. in Data Science, MAKAUT WB

Sem	Major (Offline)	Minor (Blended Mode)	Inter Disciplinary (Offline)	Ability Enhancement (Offline)	Skill Enhancement (Online /Sessional)	Common Value added Course (SESSIONAL)	TOTAL CREDITS
I	2 sub x 5 credits <i>BDS101 : Basic Mathematics & Statistics (5)</i> <i>BDS102 & 192: Introduction to Computing & Programming with C (3+2)</i>	(1 sub x 3 credits) Principles Of Management	Any one from GE baskets Basket A or D (3 credits)	AECC 101- English and Professional Communication	SEC 181- Life Skills & Personality Development (2 credits)	VAC 181A/B/C- Yoga/ Health & Wellness/ Sports (2 credits)	22
II	2 sub x 5 credits <i>BDS201 & 291: DBMS (3+2)</i> <i>BDS202 & 292: DSA (3+2)</i>	(1 sub x 3 credits) Organization Behaviour/ Business Ethics & Corporate Governance	Any one from GE baskets Basket B or E (3 credits)	AECC 201- Modern Indian Languages and Literature (2 credits)	SEC 201- IT Skills (2 credits)	VAC 281A/B/C/D- Critical Thinking / NSS/ Mental Health/ Environmental Studies (2 credits)	22
III	2 sub x 5 credits <i>BDS301: Statistics for Data Sc - 1 (5)</i> <i>BDS302 & 392: AI & ML - 1 (3+2)</i>	(1 sub x 4 credits) Principles of Marketing/ Business & Sustainability	Any one from GE baskets Basket C or F (3 credits)	AECC 301- The Constitution, Human Rights and Law (2 credits)	SEC 301- Understanding basics of Cyber Security (2 credits)		21
IV	2 sub x 4 credits <i>BDS401: Statistics for Data Sc - 2 (4)</i> <i>BDS402 & 492: AI & ML - 2 (2+2)</i> 1 sub x 5 credits <i>BDS403 & 493: Python for Data</i>	Human resource management / Corporate Social Responsibility (CSR) (4 credits)		AECC 401A Society Culture and Human Behavior (2 credits)			23

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	<i>Science (3+2)</i>	Sales and distribution management /E-Commerce (4 credits)					
V	2 sub x 5 credits <i>BDS501: Discrete Mathematics (5)</i> <i>BDS502 & 592: NLP (3+2)</i>	Financial management (4 credits) Entrepreneurship (4 credits)			FYBMS 581 Internship (4 credits)		22
VI	2 sub x 5 credits <i>BDS601 & 691: Big Data Analysis (3+2)</i> <i>BDS602 & 692: Time Series Analysis (3+2)</i> 1 sub x 4 credits <i>BDS603 & 693: Data Visualization (2+2)</i>	Customer relationship management (4 credits) Career planning and management/Managing Workplace Diversity (4 credits)					22
VII	2 sub x 5 credits <i>BDS701A: RM / BDS701B: PM (5)</i> <i>BDS702 & 792: Deep Learning (3+2)</i>	Consumer behaviour / Exploring Business					22

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	1 sub x 4 credits <i>BDS403: Data Security (4)</i>	Opportunity (4 credits) Strategic management/ Intellectual Property Rights (4 credits)					
VIII	2 sub x 5 credits <i>BDS801: IOT & Sensor Data Analysis (5)</i> <i>BDS802: Social Network Analysis (5)</i>				FYBDS 881A: Capstone Project FYBDS 881B: Research project (12 credits)		22
	19 sub - 91 credits	11 sub – 42 credits	3 sub – 09 credits	4 sub – 08 credits	3 sub & Int & Proj - 22 credits	2 sub – 4 credits	176