

Tilak Maharashtra Vidyapeeth
Department of Computer Science
BCA (Specialization in Data Science Machine Learning)
course structure 2025-26

B. C. A. (Specialization in Data Science & Machine Learning) (786)									
Subject Code	Subject Name	Category	Credit Th Pr		Theory Marks EXT INT		Practical Marks EXT INT		Tot. Marks
BCAD25-101	C Programming	Core	3	-	60	40	-	-	100
BCAD25-102	Mathematics	Core	4	-	60	40	-	-	100
BCAD25-103	Computer & Network Fundamentals	Interdisciplinary	3	-	60	40	-	-	100
BCAD25-104	Operating System	DSC	3	-	60	40	-	-	100
BCAD25-105	English OR	AECC	2	-	30	20	-	-	50
BCAD25-106	Sanskrit								
VAC105	Nitishataka Purvardha (Marathi) OR	Open Elective	2	-	-	50	-	-	50
VAC109	Gender Perspectives								
BCAD25-107	Advanced Excel	Skill Enhancement Course	2	-	30	20	-	-	50
BCAD25-108	C Programming (PR)	Core-LAB	-	1	-	-	30	20	50
20									600
BCAD25-201	Python Programming	Core	3	-	60	40	-	-	100
BCAD25-202	Statistics	Core	4	-	60	40	-	-	100
BCAD25-203	Structured System Analysis and Design	DSC	3	-	60	40	-	-	100
BCAD25-204	Data Mining	Core	3	-	60	40	-	-	100
BCAD25-205	Communication Skills	AECC	2	-	30	20	-	-	50
BCAD25-206	Yoga OR	Open Elective	2	-	30	20	-	-	50
VAC207	Nitishataka Uttarardha (Marathi) OR				-	50			
VAC211	Moral Values				-	50			
IKS24	Indian Knowledge System (IKS)				-	50			
BCAD25-207	Python Programming(PR)	Core-Lab	-	1	-	-	30	20	50
20									600

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BCAD25-301	Advanced Web Designing	Core	3	-	60	40	-	-	100
BCAD25-302	Database Management System (DBMS)	Core	3	-	60	40	-	-	100
BCAD25-303	Environmental Studies	Value Added Course	4	-	-	100	-	-	100
BCAD25-304	Exploratory Data Analysis	DSC	2	-	30	20	-	-	50
BCAD25-305	Marathi	AECC	2	-	30	20	-	-	50
BCAD25-306	Japanese								
BCAD25-307	Machine Learning Foundation	DSC	2	-	30	20	-	-	50
BCAD25-308	Data Visualisation	DSC	2	-	30	20	-	-	50
BCAD25-309	Advanced Web Designing (PR)	Core-Lab	-	1	-	-	30	20	50
BCAD25-310	Data Visualisation (PR)	DSC-Lab	-	1	-	-	30	20	50
			20						
									600
BCAD25-401	Advanced Database Management System	Core	3	-	60	40	-	-	100
BCAD25-402	Java Programming	Core	3	-	60	40	-	-	100
BCAD25-403	Power Bi	DSC	3	-	60	40	-	-	100
BCAD25-404	Unified Modeling Language (UML)	DSC	3	-	60	40	-	-	100
BCAD25-405 OR VAC403	Soft Skills OR Personality Development	Open Elective	2	-	-	50	-	-	50
BCAD25-406	Bigdata Technologies	Value Added Course	3	-	60	40	-	-	100
BCAD25-407	Java Programming (PR)	Core-LAB	-	1	-	-	30	20	50
BCAD25-408	Advanced Database Management System (PR)	Core-LAB	-	1	-	-	30	20	50
BCAD25-409	Power Bi (PR)	DSC-LAB	-	1	-	-	30	20	50
			20						
									700

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Subject Code	Subject Name	Category							
BCAD25-501	Machine Learning - I (Model building)	Core	3	-	60	40	-	-	100
BCAD25-502	NLP	Core	3	-	60	40	-	-	100
BCAD25-503	IoT	DSC	3	-	60	40	-	-	100
BCAD25-504	Introduction to Artificial Intelligence	DSC	3	-	60	40	-	-	100
BCAD25-505	Business Communication	Interdisciplinary	3	-	60	40	-	-	100
BCAD25-506	Business Forecasting	Multidisciplinary	3	-	60	40	-	-	100
BCAD25-507	OR Digital Marketing with Data Analytics								
BCAD25-508	Machine Learning - I (PR)	Core-LAB	-	1	-	-	30	20	50
BCAD25-509	NLP (PR)	Core-LAB	-	1	-	-	30	20	50
			20						700
BCAD25-601	Machine Learning - II (MLOps & Model Development)	Core	3	-	60	40	-	-	100
BCAD25-602	Deep Learning	Core	3	-	60	40	-	-	100
BCAD25-603	Cloud Technology & Security	DSC	2	-	30	20	-	-	50
BCAD25-604	Project	Core	6	-	90	60	-	-	150
BCAD25-605	Internship	Internship	4	-	-	100	-	-	100
BCAD25-607	Machine Learning - II (PR)	Core-LAB	-	1	-	-	30	20	50
BCAD25-608	Deep Learning (PR)	Core-LAB	-	1	-	-	30	20	50
			20						600

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BCAD25-701	Data Structure using python	Core	3	-	60	40	-	-	100
BCAD25-702	Green Computing	DSC	3	-	60	40	-	-	100
BCAD25-703	Discrete Mathematics	Core	3	-	60	40	-	-	100
BCAD25-704	Data Engineering and Pipeline	Core	3	-	60	40	-	-	100
BCAD25-705	Cloud Computing using AWS & Azure	DSC	3	-	60	40	-	-	100
BCAD25-706	Research Methodology	AECC	4	-	60	40	-	-	100
BCAD25-707	MOOC - I	MOOC	1	-	-	50	-	-	50
BCAD25-708	Data Structure using python (PR)	Core-LAB	-	1	-	-	30	20	50
BCAD25-709	Data Engineering and Pipeline (PR)	DSC-LAB	-	1	-	-	30	20	50
22									750
BCAD25-801	Deep Learning & Neural Network	Core	3	-	60	40	-	-	100
BCAD25-802	Agents in AI	Core	3	-	60	40	-	-	100
BCAD25-803	Django Web Framework	DSC	3	-	60	40	-	-	100
BCAD25-804	Project	Core	-	6	-	-	120	80	200
BCAD25-805	Internship	Internship	-	4	-	-	-	100	100
BCAD25-806	MOOC - II	MOOC	2	-	-	100	-	-	100
BCAD25-807	Django Web Framework (PR)	DSC-LAB	-	1	-	-	30	20	50
22									750