



B.Sc.

DATA SCIENCE & ARTIFICIAL INTELLIGENCE

Duration : 3 Years

Semester : 6

EXPLORE THE WORLD OF DS & AI

The Bachelor of Science in Data Science and Artificial Intelligence is an interdisciplinary program designed to equip students with the knowledge and practical skills necessary to analyze complex data and develop intelligent systems. The program integrates key concepts from statistics, computer science, and artificial intelligence, preparing students for a data driven future.

KEY ASPECTS OF THE PROGRAM

CURRICULUM

Foundations: Mathematics, Statistics, Computer Programming

Core Subjects: Programming Tools, Databases, Big Data & Cloud

Specializations: Machine Learning, Deep Learning, Natural Language, Processing, Computer Vision.

SKILL DEVELOPMENT

STUDENTS BUILD PROFICIENCY IN:

Data analysis and visualization
Programming languages such as Python and R
Machine learning and AI model Development
Neural networks and deep learning
Data Analysis and preprocessing

REAL-WORLD APPLICATIONS

Finance: Fraud detection, algorithmic trading

Healthcare: Predictive diagnostics, personalized medicine

Manufacturing: Predictive maintenance, automation

Retail and Marketing: Customer analytics, recommendation systems

CAREER OPPORTUNITIES

- Data Scientist
- AI/ML Engineer
- Data Analyst
- Business Intelligence Analyst
- Data Engineer
- AI Research Assistance

PROGRAM HIGHLIGHTS

ELIGIBILITY CREITERIA:

Required: Completion of 10+2 (or equivalent)
from a recognized board

Stream: Science with Maths &
Commerce with Accounts

Minimum Marks: Generally, a minimum
of 55% aggregate marks in HSC.

Medium: English



PREFERRED / ADDITIONAL QUALIFICATIONS:

Basic Programing Knowledge (optional but advantageous)
good knowledge of mathematics

Fees Structure University + Program Learning Fees

FY.B.Sc. DS & AI 2026-27

Online Registration Fees	200/-
Online Admission Processing Fees	500/-
University Fees	30000/-
Program Learning Fees	47000/-

Fee Payment Details At The Time Of Admission:

- ◆ University Fees
- ◆ Program Learning Fees - Installment 1
- ◆ Program Learning Fees - Installment 2 (on Or Before November 2026)

COURSE STRUCTURE

As per UGC norms Choice Based Credit System is implemented

SEMISTER I

Course Code	Course Name	Category	Credit		Theory Marks		Practical Marks		Total
			Th	Pr	Ext	Int	Ext	Int	
79925-101	C programming	Core	3	3	60	40	—	60	100
79925-102	Mathematics	Core	4	4	60	40	—	60	100
79925-103	Computer & Fundamentals Networking	DSC	3	3	60	40	—	60	100
79925-104	Operating System	DSC	3	3	60	40	—	60	100
79925-105	Logic Development	AECC	2	2	30	20	—	30	50
79925-106	Lokmanya Bal Gandharr Tilak Marker of modern India	Value Added	2	2		50	—	—	50
79925-107	Advanced Excel	SEC	2	2	30	20	—	—	50
79925-108	C programming (PR)	Core-LAB	—	—	—	—	30	20	50
	Total		20						600

SEMISTER II

Course Code	Course Name	Category	Credit		Theory Marks		Practical Marks		Total
			Th	Pr	Ext	Int	Ext	Int	
79925-201	Python Programming	Core	3	—	60	40	—	—	100
79925-202	Statistics	Core	4	—	60	40	—	—	100
79925-203	Structured System Anyalysis and Design	DSC	3	—	60	40	—	—	100
79925-204	Data Mining	Core	3	—	—	40	—	—	100
79925-205	Communication Skills	AECC	2	—	30	20	—	—	50
VAC-211	Moral Valued	Value Added	2	—		50	—	—	50
IKS 24	Indian Knowledge System (IKS)- Generic	IKS-Genetic	2	—		50	—	—	50
79925-206	Python Programming(PR)	Core-LAB	—	1	—	—	30	20	50
	Total		20						600

SEMESTER III

Course Code	Course Name	Category	Credit		Theory Marks		Practical Marks		Total
			Th	Pr	Ext	Int	Ext	Int	
79925-301	Advanced Web Designing	Core	3	—	60	40	—	—	100
79925-302	Database Management System (DBMS)	Core	3	—	60	40	—	—	100
79925-303	Environmental Studies	Value Added	4	—	—	100	—	—	100
79925-304	Exploratory Data Analysis	DSC	2	—	30	20	—	—	50
79925-305	Lokmanya B.G Tilak- The Visionary	Value Added	2	—	—	50	—	—	50
79925-306	Machine Learning Foundation	SEC	2	—	30	20	—	—	50
79925-307	Data visualisation	DSC	2	—	30	20	—	—	50
79925-308	Advanced Web Designing(PR)	Core-LAB	—	1	—	—	30	20	50
79925-309	Data visualisation (PR)	Core-LAB	—	1	—	—	30	20	50
	Total		20						600

SEMESTER IV

Course Code	Course Name	Category	Credit		Theory Marks		Practical Marks		Total
			Th	Pr	Ext	Int	Ext	Int	
79925-401	Advanced Database Management System	Core	3	—	60	40	—	—	100
79925-402	Java Programming	Core	3	—	60	40	—	—	100
79925-403	Power Bi	Skill Enhancement	2	—	60	40	—	—	100
79925-404	Unified modeling Language (UML)	DSC	2	—	60	40	—	—	100
79925-405	Soft Skills	AECC	2	—	30	20	—	—	50
79925-406	Bigdata Technologies	Interdisciplinary	3	—	60	40	—	—	100
79925-407	Java Programming (PR)	Core-LAB	—	1	—	40	30	20	50
79925-408	Advanced Data Management System (PR)	Core-LAB	—	1	—	—	30	20	50
79925-409	Indian Knowledge System- Science-Discipline Specific	IKS- DS	2	—	—	50	—	—	50
	Total		20						600

SEMISTER V

Course Code	Course Name	Category	Credit		Theory Marks		Practical Marks		Total
			Th	Pr	Ext	Int	Ext	Int	
79925-501	Machine Learning-I	Core	3	—	60	40	—	—	100
79925-502	Narural Language Processing	Core	3	—	60	40	—	—	100
79925-503	Internet of Thing IoT	DSC	3	—	60	40	—	—	100
79925-504	Introduction to Artificial Intelligence	DSC	3	—	60	40	—	—	100
79925-505	Business Communication	Interdiscipli-nary	3	—	60	40	—	—	100
79925-506	Business Forcasting OR Digital Marketing with data Analytics	Multidiscipli-nary	3	—	60	40	—	—	100
79925-507									
79925-508	Machine Learning-I (PR)	Core-LAB	—	1	—	40	30	20	50
79925-509	Natural Language Processing (PR)	Core-LAB	—	1	—	—	30	20	50
Total			20						600

SEMISTER VI

Course Code	Course Name	Category	Credit		Theory Marks		Practical Marks		Total
			Th	Pr	Ext	Int	Ext	Int	
79925-601	Machine Learning-II	Core	3	—	60	40	—	—	100
79925-602	Deep Learning	Core	3	—	60	40	—	—	100
79925-603	Cloud Technology & Security	DSC	2	—	60	40	—	—	100
79925-604	Project	Core	6	—	60	40	—	—	100
79925-605	Internship	Internship	4	—	—	100	—	—	100
79925-606	Machine Learning- II(PR)	DSC-LAB	—	1	—	—	30	20	50
79925-607	Deep Learning (PR)	Core-LAB	—	1	—	—	30	20	50
Total			20						600



EXAM PATTERN

Credit Choice Based Internal (Online/Assignment) & External (Theory/Practical).

40% Passing for each Internal & External Exam

ATKT pattern is there in B.Sc. DS&AI.

A student **can be promoted to SY.B.Sc.DS&AI** even if they have **ATKT in all subjects** of FY.B.Sc.DS&AI

To be eligible for admission to **TY.B.Sc.DS&AI**, the student **must** have cleared all FY.B.Sc.DS&AI subjects.



ADMISSION PROCESS OF B.Sc.Data Science & Artificial Intelligence

Admission process of B.Sc.DS&AI degree program is online.

List of required documents for B.Sc.DS&AI Admission

Passport size photo

SSC & HSC Mark sheet

Leaving Certificate

Aadhar Card

University and Collage fees transaction slip

ABCID



GENERAL INFORMATION

B.Sc. in Data Science & Artificial Intelligence (DS & AI) degree program is affiliated to Tilak Maharashtra Vidyapeeth, Pune a reputed and UGC-recognized university.

Mathematics for Science stream students and Accounts for Commerce stream students are compulsory.

No Entrance Exam.

Reserved Candidates will get 3% benefit of their University Tuition Fees (student has to do all coordination with the University).

Textbooks for all subjects will be provided by the University.

No hostel facility and travelling concession (Railways/Bus).

Laptop is compulsory.

Dual Degree is possible.

No facility for physically challenged students.

No gap admissions during the degree. Refund of fee for the cancellation of admission as per UGC norms will be considered after submission of a written application only, within 15 days from the date of admission. No request for refund of fees will be considered later. (Rs. 1000/- will be deducted by the University for admission)

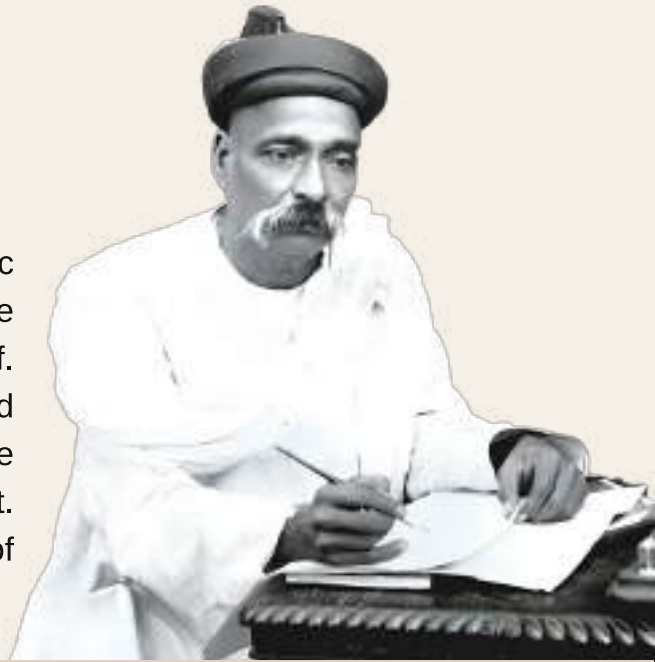




TILAK MAHARASHTRA VIDYAPEETH PUNE

A rich legacy of 100 years in the field of education

INDIA'S STRUGGLE for freedom was a dynamic process in which a nation was punctuating, became conscious of new aspirations and realized its best self. Among the individuals who initiated and accelerated this process, the late Lokmanya Tilak was one of the foremost. He does not, however, belong to the past. His words and deeds are a part of the personality of India even.



EDUCATION

Lokmanya Tilak established New English School in 1880 & Fergusson College in 1885 along with his friends. Education according to them was a very good platform for implementing their ideas of national education and to mould generation which will help build modern and strong India. The origin of the Vidyapeeth dates back to pre-independence period - 1921 when immediately after the demise of Lokmanya Bal Gangadhar Tilak, his follower Mahatma Gandhi mooted the idea of establishing an university in his memory.



UGC RECOGNITION

NAAC Reaccredited (Third Cycle) with 'B++' grade Legacy of 100 years in the field of education

Though late, i.e. after 66 years of establishment of Vidyapeeth, it was only in the year 1987 that the UGC (University Grants Commission) took cognizance of significant work of TMV in the fields of Sanskrit, Ayurveda, Social Sciences and Distance Education and thereby on its recommendations, the Government of India conferred the "Deemed to be a University" status upon Tilak Maharashtra Vidyapeeth. With this conferment of "Deemed to be a University" status, the Vidyapeeth gained recognition at the national level. The Vidyapeeth at present offers post graduate education through MBA, MSW, MJ, B.Lib.I.Sc., M.Lib.I.Sc., M.A. or M.A.-(Social Sciences, Marathi, Hindi, English, Japanese, Sanskrit, Indology), M.A. in Classical Dance, M.Sc Nutrition & Ayurveda, M.A.M.C., Mass Communication and M.Com. along with , B.Sc. Computer Applications, B.Sc. Ds- AI, B.Sc. Cyber Security, BCA, BBA, B.A. - Animation, VFX, Game Designing, BHMCT, BBA (Hotel Management), BPT, B.Sc. Nursing, B.Com, B.A. department under Mass Communication & Journalism. There are programme like B.A.J.M.C., B.A. - Sound, Film Making, Photography. B.A. or B.A. - Journalism and Mass Communication and Ph.D. in Management, Sanskrit, Indology, Ayurveda, Journalism and Mass Communication, Social Work, Social Science, Interdisciplinary.

As per the guidelines of UGC, the Choice Based Credit System has been adapted and Under graduate courses.

VISION

To impart national education, through fine blend of traditional and modern knowledge as well as to democratize quality higher education by empowering the masses and reaching the unreached.



MISSION

To create analyzing creative and practical intelligence.
To equip and update with skills and knowledge for employability and entrepreneurship.
To instill social accountability, serving community and civil ethics



MESSAGE FROM THE CHANCELLOR

It is my profound honour to assume office as the Chancellor of TMV.

I express my sincere gratitude for the confidence reposed in me. I am deeply committed to the responsibility this role entails.

I will carry the Tilak legacy forward with the utmost integrity. The values of self-reliance, national service, and intellectual excellence that form the bedrock of this institution will remain our guiding Star as we navigate the modern educational landscape. In today's rapidly evolving world, the bond between academia and industry must be stronger than ever.

I will surely try to leverage my background as a Doctorate in Engineering and my professional journey as an entrepreneur to introduce a new era of "Industry-Ready" education.

We will focus on developing specialized courses tailored to current industrial demands utilizing artificial intelligence to personalize the learning experience.

Our goal will be to ensure that every student graduates not just with a degree, but with the practical expertise and absolute zeal required to enter the workforce.

By aligning our curriculum with real-world entrepreneurial dynamics, we will equip our students to approach the industry with unwavering confidence.

I look forward to working closely with all of you to transform this vision into reality and elevate the prestige of our institution further.

With warm regards,

Dr. S. Srikumar
Chancellor.





INFORMATION CENTRE DETAILS

Location

DES Mumbai Campus, Kirti College
Road, Off, SVS Rd, Dadar(W),
Mumbai 400028, Maharashtra(India).

Divisions

Only 60 students in one division

Lecture Mode Offline

Library

Learning Management System is
provided to students with individual
student login.

Lecture Time

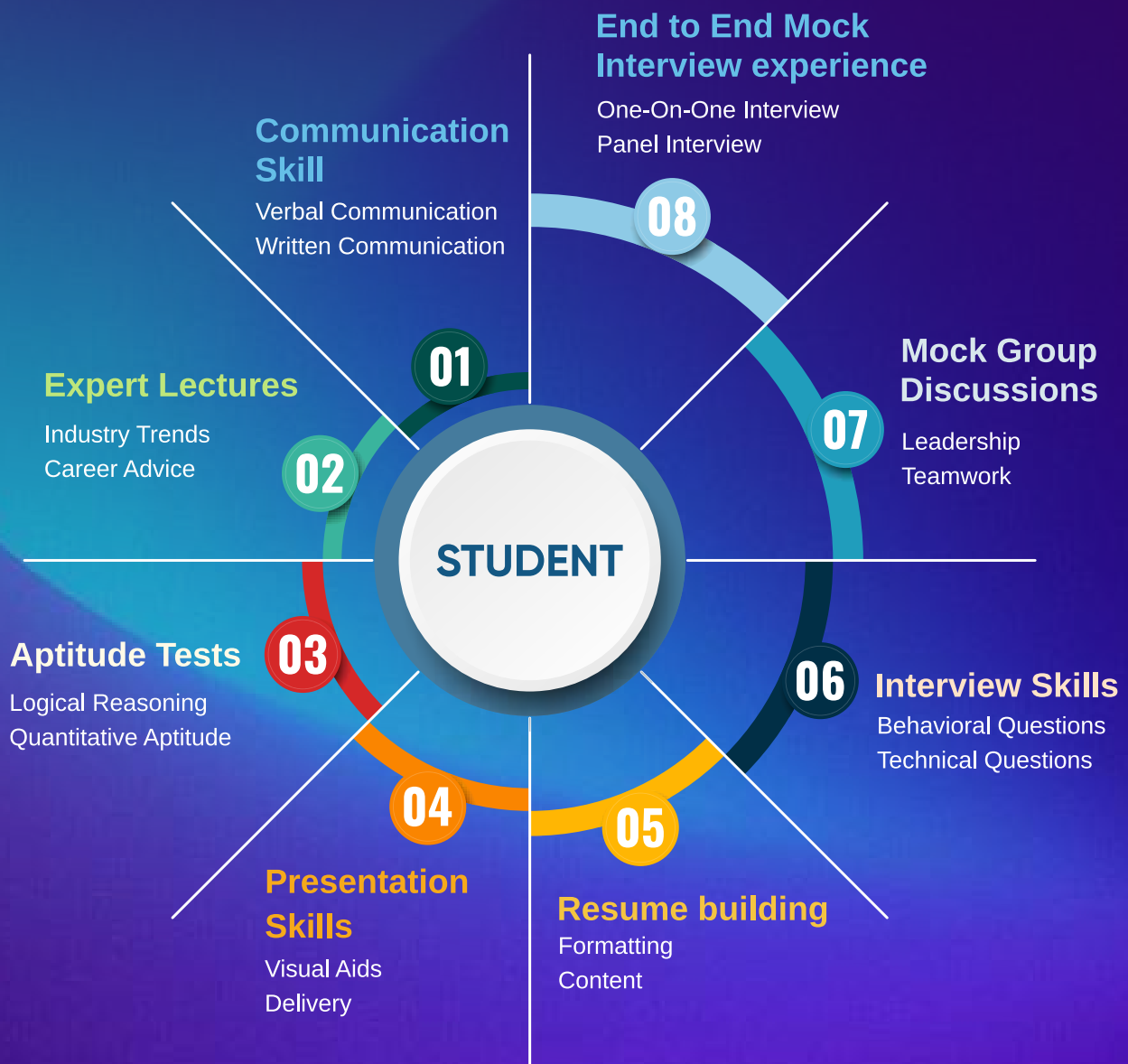
B.Sc.DS&AI lectures are
scheduled from Monday to
Saturday in Afternoon Session.

Practicals Conducted In
Computer Lab each lab has
60 Desktops & one
student/computer.

Extra Curricular Activity

Internal Group Software Projects.
Guidance about Master MCA/MMS/
PGDFM
Internship

PLACEMENT ASSISTANCE



PrePlacement Talk

PrePlacement Talk by our industry experts is a complete solution to a placement preparation and profile building for our students preparing for campus and off-campus placement opportunities.

Visit for more info:-

<https://bcaeducation.com/student/our-placed-students>

MOCK GROUP DISCUSSION



INTERVIEW SKILLS



APTITUDE TEST



EXPERT LECTURES



PRESENTATION & COMMUNICATION SKILLS

