



TI LAK MAHARASHTRA VIDYAPEETH, PUNE

DEPARTMENT OF COMPUTER SCIENCE

B.S.C

DATA SCIENCE

4 YEARS DEGREE COURSE



MESSAGE FROM CHANCELLOR & VICE - CHANCELLOR



Dear Students,

TMV is an educational memorial of Lokmanya Bal Gangadhar Tilak, the father Indian unrest and advocate of National Education. Lokmanya Tilak had proposed the four-fold program i.e. Swarajya, Swadeshi, Boycott and National Education.

Lokmanya Tilak was of the firm belief that people must be educated if progress is to be achieved. Hence, he advocated that, Education must be widely spread and directed towards building character, dedication and hard work. He wanted Education in all the disciplines, Traditional, Scientific, Technical, Legal, Medical, Agricultural, Trades etc. The sole aim was to provide a much-needed educational facilities in almost all the faculties of knowledge at the undergraduate, post graduate and research levels.

Today, the TMV (Deemed to be university under parent trust offers various courses. Quality education is provided to students by the professionally qualified and experience faculty. The departments like Administration, Accounts, Examination, Admission Section, publication and Library are centralized and computerized. These departments are well- equipped with ICT facilities. With a team of dedicated staff, Vidyapeeth is all geared up to serve the student community as per the changing educational environment.

The student is the most important person on our campus. We create opportunities and inspire students to achieve their goals. We recognize that in addition to our students' academic pursuits, they lead full, rich lives and need our support.

I encourage you to visit our campus and learn more about the opportunities available to you at Tilak Maharashtra Vidyapeeth Trust.

**-Dr. Deepak J. Tilak
Chancellor, TMV**



Dear Students,

It is my pleasure to address you as the Vice Chancellor of this esteemed institution. As you embark on your educational journey, I would like to take this opportunity to convey a message of encouragement and inspiration.

We are committed to providing you with an education that is not only academically sound but also prepares you to face the challenges of the real world. Our focus is on providing you with a holistic education that encompasses intellectual, social, and emotional growth. We believe that a well-rounded education is the key to success.

As students, you are the future of our nation. It is essential that you take your education seriously and strive to excel in all areas of your academic pursuits. We are here to support you every step of the way and provide you with the resources necessary to achieve your goals.

I encourage you to take advantage of the opportunities available to you, both inside and outside the classroom. Participate in extracurricular activities, engage in community service, and build lasting relationships with your peers and mentors. These experiences will not only enrich your education but also prepare you for life beyond the walls of this institution.

Remember, your education is a journey, and the destination is not just the degree you earn but the person you become. So, embrace this journey with an open mind, a willingness to learn, and a commitment to excellence. The future is yours, and we are excited to see all that you will achieve.

Best wishes for a successful and fulfilling educational journey !

**-Dr. Geetali Tilak
Vice Chancellor**

WHY DATA SCIENCE?

Data Science: Empowering Today's World, Businesses and Careers

In today's digital era, data is more than just numbers—it's the lifeblood of innovation and strategic decision-making. Data Science unlocks the potential hidden in data, transforming it into actionable insights that power industries, improve lives, and create competitive advantages.

Empowering the World:

From healthcare and education to finance and agriculture, Data Science is solving real-world problems—predicting disease outbreaks, personalizing learning, preventing fraud, and optimizing crop yields.

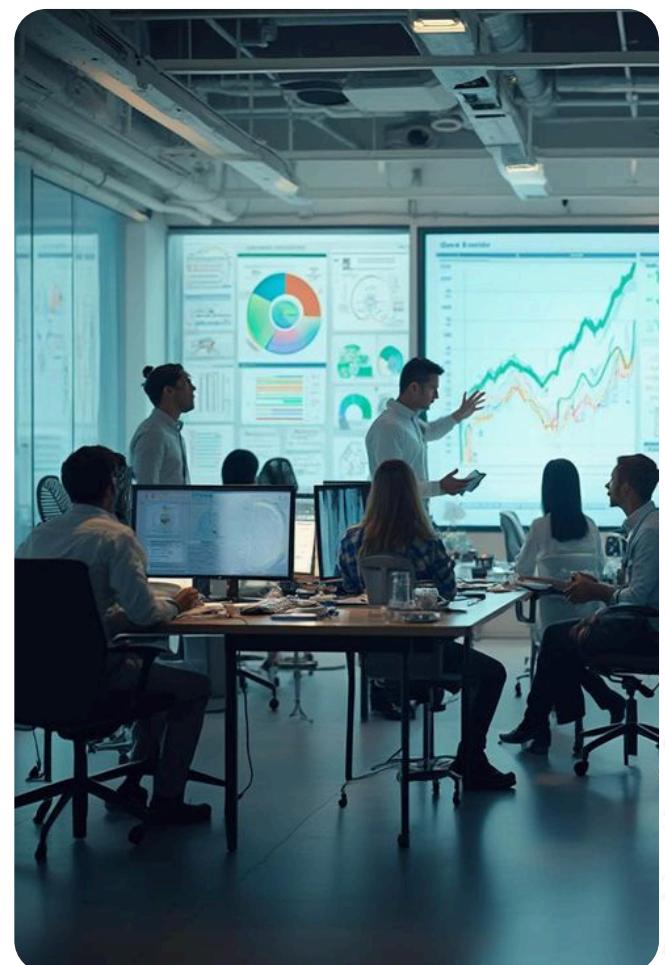
Fueling Business Growth:

Organizations harness data science to understand customers, streamline operations, and drive profits. Predictive models, AI algorithms, and big data analytics help companies stay ahead in a data-driven economy.

Building Rewarding Careers:

With demand for data professionals soaring, Data Science offers lucrative and intellectually stimulating career paths. Whether as data analysts, machine learning engineers, or AI researchers, professionals are shaping the future across sectors.

Data Science is not just a field—it's a force reshaping how we live, work, and think. Would you like this adapted for a presentation, article, or personal statement?



CURRICULUM

1 Semester

Foundations of Data Science

- **Core Subjects:** Data Science with R, Introduction to Data Science, Python Programming
- **Mathematics:** Applied Mathematics
- **Skill Development:** English Communication, Foreign Language
- **Electives:** UI/UX Design, Blockchain, or Biotechnology
- **Co-Curricular:** NCC/NSS/Sports/Cultural Activities
- **Total Credits:** 22

2 Semester

Building Analytical Tools

- **Core Subjects:** Data Visualization with R, DBMS, Fundamentals of IT
- **Mathematics:** Discrete Mathematics
- **Skill Development:** English Communication II, Foreign Language II
- **Electives:** Animation & VFX, Blockchain Platforms, Computational Biology
- **Environmental Studies:** Issues & Challenges
- **Total Credits:** 22

3

Semester

Algorithms & Machine Learning

- **Core Subjects:** Machine Learning, Data Structures & Algorithms, Data Ethics & Privacy
- **Mathematics:** Probability & Statistics
- **Communication:** Business Communication
- **Electives:** 3D Animation, Blockchain Development, Bioinformatics
- **Co-Curricular:** NCC/NSS/Sports/MOOC
- **Total Credits:** 22

4

Semester

Data Systems & Applications

- **Core Subjects:** Advanced DBMS, Data Warehousing & Mining, Web Programming
- **Mathematics:** Generalized Linear Modelling
- **Skill Development:** Digital Marketing, Constitution of India
- **Electives:** Arts, Blockchain Security, Next-Gen Sequencing
- **Total Credits:** 22

5

Semester Deep Learning & Finance

- **Core Subjects:** Deep Learning, AI, Time Series
- **Professional Electives:**
 1. IoT, Marketing Analytics, Computer Vision
- **Skill Development:** Fundamentals of Finance
- **Project:** Minor Project (6 credits)
- **Total Credits:** 22

6

Semester NLP & Big Data

- **Core Subjects:** Neural Networks, Big Data Tools, NLP
- **Professional Electives:**
 2. Supply Chain, Pattern Recognition, HR Analytics
 3. Health Analytics, Rule Mining, Business Analytics
- **Project:** Major Project (6 credits)
- **Total Credits:** 22

7

Semester

AI Advancements & Research

- **Core Subjects:** Generative AI I, Reinforcement Learning, Cloud Computing
- **Professional Elective :**
4. Disease Classification, Predictive Analytics, Social Media Analytics
- Research: Research Methodology, Seminar & Paper (6 credits)
- Total Credits: 22

8

Semester

Industry-Ready Capstone

- **Core Subjects:** Generative AI II, Data Engineering, Data Visualization with Tableau/PowerBI
- **Minor:** Software Engineering
- **Internship/OJT:** 10-credit hands-on industry experience

COURSE HIGHLIGHTS

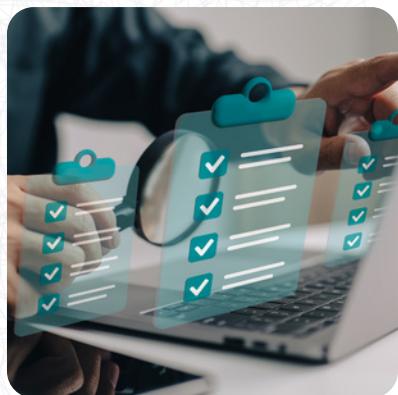


Daily Doubt Session

If you encounter any error in your learning journey we are here help to help join our daily doubt session and get your doubt cleared from our expert faculties.

Industry Relevant Projects

Immerse in our curriculum bridging theory and practice through industry-led projects. Gain invaluable hands-on experience guided by seasoned experts, ensuring real-world relevance for your skill set in the market.



Practical Solutions for each Assignment

For each assignment, you'll receive detailed solutions to help you evaluate your approach and understanding. These solutions provide insights into effective problem-solving techniques, ensuring you're well-prepared for real-world applications.

Practice Exercises

Experience our immersive practice exercises, enabling you to deepen your understanding and master concepts effortlessly. Unveil your potential with engaging activities designed to enhance your comprehension in just moments!



Profile Building session

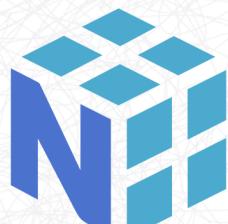
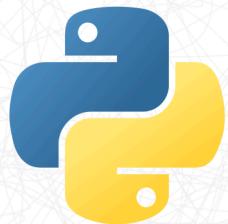
Unlock your industry potential! Elevate beyond skills—showcase your expertise! Join exclusive sessions focusing on crafting a standout LinkedIn profile & portfolio. Learn to captivate recruiters and amplify connections. Transform your abilities into opportunities effortlessly. Let's shape your professional journey together!

Dedicated Interview Preparation

You'll gain access to a dedicated interview preparation course, focused on sharpening your skills for technical and behavioral interviews. This course covers essential strategies, mock interviews, and tips to help you approach interviews with confidence and expertise.



TOOLS COVERED



SQL



learn

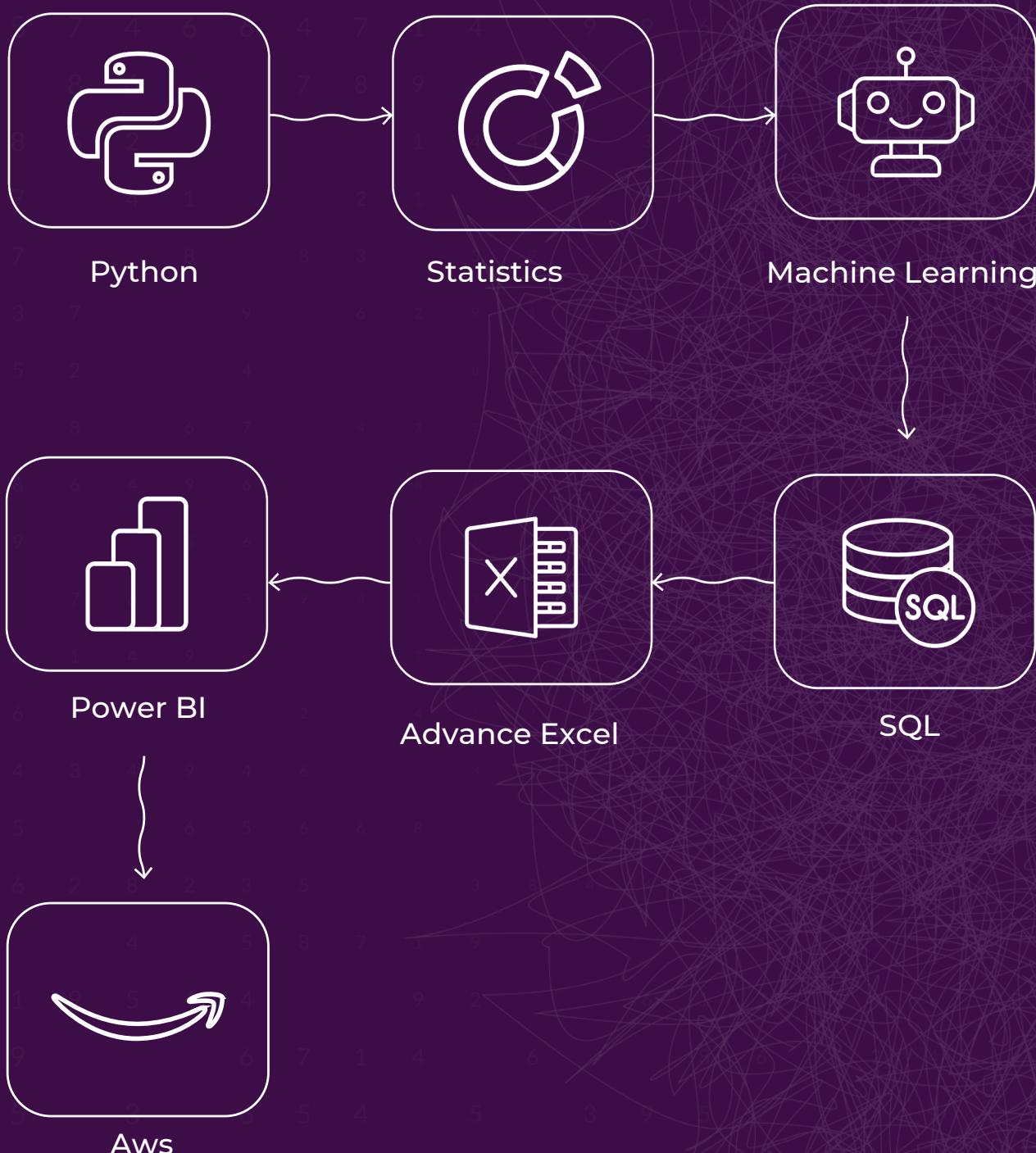


aws

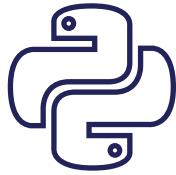


mongoDB

LEARNING PATH



PROJECTS



Python Project

Working on census data of US to analyse, factor influencing the living standard of people living USA.



ML Project

Helping banks to identify potential clients to whom they can sell their products and services.



SQL

Working on airport data to analyse flights data and identify factors which can optimise operations.



Power BI

Working on superstore dataset to analyse and create insightful dashboard which can help business grow.



AWS

Working on airlines data to get data from storage by creating ETL and analysing all in AWS.

PROGRAM HIGHLIGHTS



Project Based Learning



Industry Relevant Projects



60-70% Average Salary Hike



Dedicated Placement Assistance



Expert Faculties



Comprehensive Curriculum

INDUSTRY-ACADEMIA PARTNERS



ADMISSION DETAILS



ELIGIBILITY



12th Pass (Science, Arts or Commerce); or Any Diploma



DURATION

4 Years Degree (Eight Semesters)



INTAKE

60



CERTIFICATION



TILAK MAHARASHTRA VIDYAPEETH PUNE



TUITION FEE

₹. 1,55,000/- per Annum (Yearly)

BANKING LOAN PARTNERS



Union Bank
of India



Bank of Baroda



बँक ऑफ महाराष्ट्र
Bank of Maharashtra
भारत सरकार का उद्यम



Janata Sahakari Bank Ltd., Pune
Multistate Scheduled Bank



COSMOS CO-OP. BANK LTD.
(Multistate Scheduled Bank)
Enriching Life!



**TILAK
MAHARASHTRA
VIDYAPEETH
PUNE**

(Establishment 1921)

THANK YOU.

SCAN HERE FOR REGISTRATION



**CONTACT US &
ENROLL NOW**

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