



DIPLOMA IN DATA SCIENCE FOR HEALTHCARE

School of Biotechnology and Bioinformatics,
D. Y. Patil Deemed to be University, Navi Mumbai,
In Academic Collaboration with
BRAASK Education Pvt. Ltd. (TechMedBuddy)
revolutionizing Healthcare with Data and AI.



Grade 'A ++'
Accredited by NAAC



UGC
Recognized

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D Y PATIL
DEEMED TO BE
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SCHOOL OF
BIOTECHNOLOGY &
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NAVI MUMBAI

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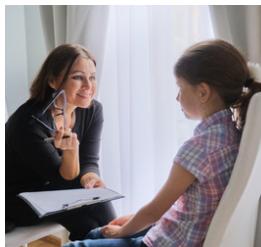
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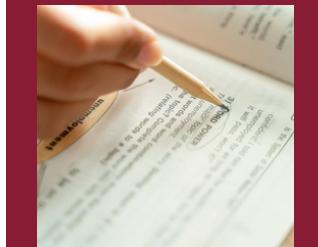
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“Change is the only Constant”

About SBB-DYPUNM

The School of Biotechnology and Bioinformatics, a constituent unit of the D. Y. Patil Deemed to be University, Navi Mumbai, was established in June 2003, with a vision to produce quality minds capable of strengthening and broadening the base of Biotechnology in India. The mission is to equip the students with extraordinary skills for life, making them not just job seekers but also job creators. The School is a pioneer in Biosciences, offering Undergraduate and Postgraduate programmes, as well as doctoral studies in Biotechnology, Bioinformatics & data science, and Food Science & Technology. It's a prominent and impressive 12-storied landmark structure with state-of-the-art laboratories and research facilities in a built-up area of 64,000 sq. ft., situated in Sector 15, CBD Belapur, Navi Mumbai. The school is being headed by Prof. Debjani Dasgupta and has more than 50 qualified and experienced faculty members who endeavour to provide world class education to students.



About TechmedBuddy

TechMedBuddy is a DPIIT and MSME-certified tech and service-based company specializing in Bioinformatics, Computational Biology, and Healthcare Data Science. The mission of the company is to bridge the gap between academia, industry and research by empowering life science graduates with in-demand skills in Data Science and AI. With over 1000+ students trained across Bachelors, Masters, and PhD levels, TechMedBuddy is dedicated to building a skilled workforce ready for careers in healthcare, biotechnology, and research. The diverse team of data scientist, bioinformaticians, computational biologists, clinical data scientists, and clinicians ensures high-quality, real-world training and mentorship. Techmedbuddy envisions a future where Indian life science professionals are equipped to lead innovation in healthcare through data driven approaches. It is committed to making this vision a reality—one student, one breakthrough at a time.



About the Programme

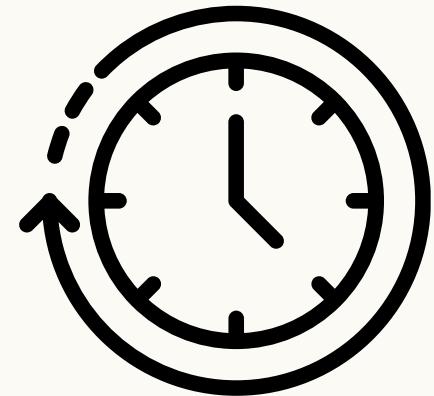
Introduction

The Diploma in Data Science for Healthcare is a 10-month, 40-credit, project-based online learning programme designed in alignment with the principles of the National Education Policy (NEP) 2020, offered by the **School of Biotechnology and Bioinformatics, D.Y. Patil Deemed to be University, Navi Mumbai**, in academic collaboration with **TechMedBuddy**. Designed at the intersection of medical Informatics, technology, and innovation, this program is tailored to meet the growing demand for skilled professionals in the rapidly evolving landscape of digital healthcare. This interdisciplinary program blends foundational medical and life sciences knowledge with cutting-edge advancements in data science, computational biology, and digital health technologies. Through a carefully curated curriculum and hands-on learning approach, participants will gain deep insights into the application of Artificial Intelligence (AI), machine learning, and data-driven decision-making in the healthcare ecosystem.



Whether you're a **healthcare professional** aiming to upskill, a **life sciences graduate** looking to transition into digital health, or a **tech enthusiast** passionate about healthcare innovation, this program empowers you to become a leader in the future of AI-driven, patient-centric care. Graduates of this program will be well-equipped to take on roles in **clinical informatics**, **health tech product development**, **research and development**, and **healthcare analytics** across hospitals, biotech companies, startups, and global healthcare organisations.

PROGRAMME HIGHLIGHTS



**Duration : 10 months
(2 semesters)**



**Mode: Online
(Live and
Recorded lectures)**



**Credits : 40-Credit
Programme, 600 hours
of teaching learning**



**Industry Capstone
Projects, Domain
Certification**



**Mentorship by Tech &
Health Experts from
the Industry**



**100% Project-Based
Learning**



**Job Readiness &
Placement Support**

Why Choose SBB-DYPUNM

X TechMedBuddy?

Hands-On Project Based Learning

Real world projects, case studies & data driven assignments.

Career & Research Support

Guidance for internships, Research and placements.

Expert Mentors

Taught by researchers, data scientists & domain experts from industry.

Industry Connect Series

Insights from the Industry and Academic Research

Industry-Focused Curriculum

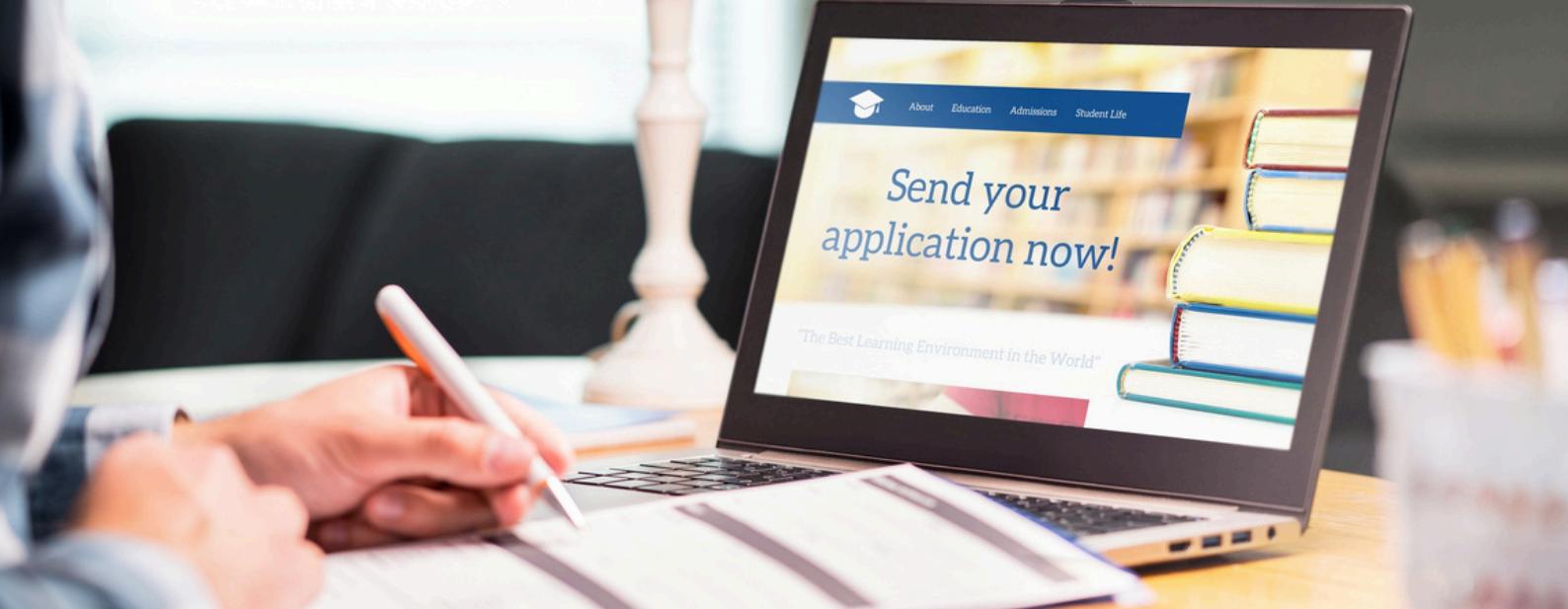
Designed with experts to match today's biomedical and tech demands.

Advanced Tools

Master R, Python, ML and DL frameworks, Omics pipelines & more.

Flexible Learning

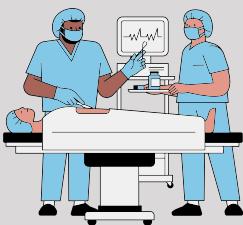
Learn at your pace with live & recorded sessions.



- **Undergraduate:** Students who have completed a minimum of 2 Years in Medical Sciences, Dental Sciences, Pharmacy, Nursing, Life Sciences, Biomedical Science, Biotechnology, Bioinformatics, Microbiology, Molecular Biology, or any other life sciences-related discipline or in Computer Science or IT



- **Postgraduate:** students currently pursuing or having completed a Master's degree in Medical Sciences, Dental Sciences, Pharmacy, Nursing, Life Sciences, Biomedical Science, Biotechnology, Bioinformatics, Microbiology, Molecular Biology, any other life sciences-related discipline or in Computer Science or IT



- **Researchers :** PhD scholars and postdoctoral fellows seeking interdisciplinary exposure

Who Can Apply ?



- **Professionals:** Working individuals in healthcare, pharma, research, or tech aiming to upskill in healthcare data

Programme Curriculum

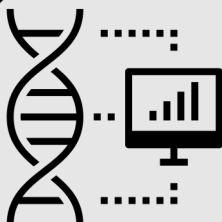
SEMESTER 1			
COURSES	Course Type	Credits	
Foundations of Data Science in Healthcare	Core	5	
Applied Machine Learning for Health	Core	5	
Biomedical Data Ecosystem	Core	3	
NLP & LLM for Clinical Application	Elective	3	
Biomedical Imaging & Computer Vision	Elective	3	
Omics & Genomics Data Science	Elective	3	
SEMESTER 2			
COURSES	Course Type	Credits	
Generative AI & Innovation in HealthTech	Core	3	
Model Development, MLOps	Core	3	
AI for CADD	Core	3	
Responsible AI, Ethics & Policy in Healthcare	Core	3	
Course Specific Projects	Elective	3	
Multi-Modality in Healthcare Applications	Elective	3	
Biomedical Time Series & Sensor Data	Elective	3	
Semester 1: Select 2 out of 3 Electives			
Semester 2: Select 1 out of 3 Electives			
Capstone project (Mandatory)		6	

Career Opportunities



Healthcare Data Analyst

Transform healthcare data into actionable insights for clinical decision-making and operational efficiency.



Bioinformatics Specialist

Analyze genomic and molecular data to advance precision medicine and personalized healthcare approaches.



Clinical Data Scientist

Develop predictive, diagnostic and prognostic models for disease progression, treatment outcomes, and clinical risk assessment.



AI/ML Engineer (Healthcare)

Design and implement advanced Algorithms for medical imaging, diagnostic systems, and health monitoring



Digital Health Product Developer

Create innovative digital health solutions, from mobile health apps to clinical decision support systems

Admission Process

Step 1 Registration



Fill the registration form and pay registration fees

Step 2 Enrollment and Payment



Submit required documents (Self attested)

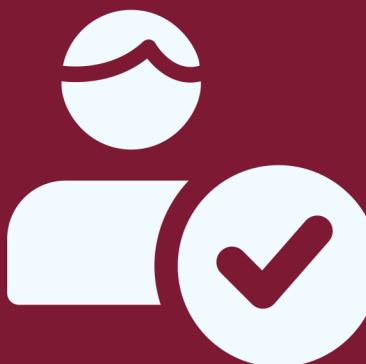
Payment options:

- Online payment gateway (UPI/ credit/debit cards, net banking)

Step 3 Welcome on Board (Admission Confirmed)



- Admission confirmed after document verification and fee payment.
- Receive login credentials .



Programme Fee

For NRIs and International Candidates

\$ 2000

For Indian Candidates

₹ 85,000



Instructors



Dr. Naveen Padmadas

Associate Professor at SBB with a PhD in Bioinformatics and 21 years of experience in Bioinformatics education. Leads Virtual Labs at SBB (MoE-IITB) and a specialist in e-learning and curriculum development.



Dr. Sumeet Patiyal

PhD (IIT-Delhi) in Computational Biology. Expert in bioinformatics, systems biology, and cheminformatics; developed tools in immunopeptidomics.



Mr. Alok Anand

Founder of TechMedBuddy. Holds Master's in Complex Systems (JNU) and M.Tech. Computational Biology (IITD). Expertise in transcriptomics, multi-omics, and generative transcriptomics.



Mr. Vasudev

Computer Vision specialist (B.Tech, DTU) with 5+ years at Mercedes-Benz in deep learning. Focused on AI for healthcare and mentorship.



Dr. Amitesh Khare

Healthcare leader with 13+ years in administration, digital transformation, and strategic planning. Published researcher and tech-driven equity advocate.



Dr. Neel Das

GenAI expert applying AI, NLP, and clinical stats to healthcare and life sciences. Passionate about mentorship and accessible innovation.



Dr. Harsh

PhD in Computational Biology from IISc Bangalore; . Specializes in linear algebra, differential equations, data science, and machine learning.



Mr. Prithivee

MLEngineer with 4+ years' experience. Master's in Data Science (IIIT Hyderabad). Specializes in GenAI, NLP, and MLOps; active tech blogger.



Dr. Shailya Verma

PhD from NCBS, Bangalore. Focus on TLR pathway evolution and drug discovery. Now integrating AI/ML in biomedical research and teaching.



Ms. Manas Pratiti

Master's in Computational Biology (JNU). 3 years' research in genomic sciences, including Exome data analysis. Dedicated educator.



Ms. Prakriti Garg

Master's in Biomedical Data Science & CS (University of Wisconsin-Madison). Co-founded TechMedBuddy, offering early tech leadership.



Mr. Harshal Verma

Electrical Engg. (BTech) & AI (MTech, IIT Hyderabad). Works on vision-based AI at ARAI; robotics enthusiast and former Robotix Club lead.

Testimonials

**Ashwini Khandavalli,
Tata Memorial Hospital ,
Mumbai**

TechMedBuddy is friendly when it comes to teaching aspect the depth of knowledge they have is so good and they try to explain it in easy way.I was very unfamiliar with python but now i can slove questions using python and now Machine learning concept.The experience as been fantastic so far. THANK YOU
Techmedbuddy
#highlyrecommended

**Dr. Uvais Nalakath Arakkal,
Psychiatrist and Clinical
Researcher**

This **Diploma in Data Science for Healthcare** has been an intensive and enriching journey. Starting from the very basics, the course delves into each topic with remarkable depth. The curriculum is brilliantly balanced with extensive hands-on training and problem-based assignments, which have been instrumental in moving theory into practice. It is profoundly enhancing my understanding of AI's role and potential in medicine. Given its practical focus and comprehensive coverage, I would highly recommend this course to any medical professional seeking to deepen their expertise and confidently navigate this evolving field

**Anamta Sayed
BTech Biotechnology ,
DY Patil University,
Navi Mumbai**

My experience over the past three months has been very positive. The course has helped me build a clearer understanding of healthcare data and its real-world applications. The lessons are structured, the concepts are practical, and the hands-on exercises make learning easier. Overall, it's been motivating and academically enriching so far.



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School of Biotechnology and
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D Y Patil Deemed to be University
Plot 50, Sector 15, CBD Belapur,
Navi Mumbai 400 614
dypatil.edu/schools/school-of-biotechnology-bioinformatics/

Academic collaboration Partner



TechMedBuddy

🌐 techmedbuddy.com
✉️ support@techmedbuddy.com
📞 +91 7042845882
+91 8802765425

