

DEPARTMENT OF BIOLOGICAL SCIENCES

MASTER'S IN BIOLOGICAL SCIENCES

2024-2025

PLACEMENT BROCHURE



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SUNANDAN DIVATIA SCHOOL OF SCIENCE





Dedicated to academic excellence, offering undergraduate and postgraduate programs in scientific disciplines like chemistry, mathematics and biological sciences

Rigorous curriculum and state-of-the-art facilities, cutting edge research and experimentation, collaborations with industry partners and research institutions, vibrant culture of Innovation and discovery

Promoting scientific literacy through outreach initiatives, workshops, seminars, and public lectures, collaborating with local schools, government agencies, and fostering an environment of curiousity and purpose

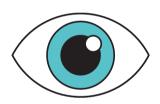
The Sunandan Divatia School of Science (SDSOS) is a prominent institution in Mumbai, India, a beacon of scientific education and research excellence. Established in honor of the late philanthropist and visionary leader, Mr. Sunandan Divatia. SDSOS aims to foster a culture of scientific inquiry and critical thinking. Its mission is to equip young minds with the skills and knowledge needed to tackle the modern world's complex challenges.

ABOUT US



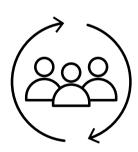
Our mission

- Quality education
- Extensive research training
- Translate research outcomes
- Collaboration with Science and Technology Institutions



Our vision

- Global recognition as premier institution
- Publications in reputed journals



Our values

- Transparency
- Integrity & Ethics
- Interdisciplinarity
- Collaboration
- Inclusivity

FROM THE DEAN'S DESK





The SVKM's NMIMS Sunandan Divatia School of Science, was born out of the foresight of the University with a view to provide undergraduate and postgraduate students an opportunity to venture into the fascinating world of Science. The School aspires to be Centre of Excellence by creating a conducive student-centric environment that supports high quality teaching and research in niche areas of Science and Technology.

The UG and PG programs in Biomedical/ Biological Sciences are designed to develop student's scientific, experimental and analytical skills. Further, the research-intensive and laboratory-based curriculum covers contemporary subjects and is intended to meet the needs of the ever-evolving chemical and pharmaceutical industry,

Our students have been trained by excellent faculty who have a strong academic research background. Besides, the students are exposed to state-of-the- art infrastructure and equipment to enhance their hands on skills. Moreover, the compulsory research project as part of the curriculum, develops their technical skills and makes them ready to face the industry. To ensure a holistic development of the student, besides academics, students are a part of various committees/cells to hone their creative, social, cultural and inter- personal skills.

I take the pleasure in inviting companies to our school, for placements. Our effort is to enable interaction between students and companies to find the best match between their aspirations and requirements.



DR. JAYAKUMAR SINGH BONDILI - DEAN,SDSOS

DEPARTMENT OF BIOLOGICAL SCIENCES

COURSES OFFERED



Ph.D. Biological Sciences



M.Sc. Biological Sciences





B.Sc. Biomedical Sciences

ABOUT THE COURSE

The curriculum framework of the course is uniquely crafted to impart contemporary knowledge in the core domain of Life Sciences through value-added education and also hone the dry lab skills of each individual.

The course stands unequivocal in its amalgamation of enhancing the skills of the individuals through the hands-on practice of a plethora of techniques (cell culture, HPLC, etc.) assisted by the state-of-the-art infrastructure.

The interpersonal qualities of communication, teamwork, and leadership are instilled in each individual in coherence with societal awareness and sensitivity through the social involvement program, thereby imparting holistic growth.

The diverse theoretical understanding acquired through interdisciplinary domains such as bioinformatics and biostatistics along with the appropriate electives tailor the individual for the Biomedical industry and related fields of Biotechnology, Pharmaceutical/Biotech, Clinical Data Management, Molecular Diagnostics, etc.

Industrial training (both summer and six-month-long projects) not only aids in translating the theory to action but also assesses the student with contemporary standards.



Suvrat Chaturvedi

- B.Sc. Biotechnology
- Dissertation: Sunandan Divatia School of Science, NMIMS, Mumbai, Maharashtra



Aakanksha Upadhyay

- B.Sc. Zoology
- **Dissertation:** Tata Institute of Fundamental Research, Mumbai, Maharashtra



Avantika Meghan Kamat

- B.Sc. Life Sciences
- **Dissertation:** Indian Institute of Technology, Mumbai, Maharashtra



Ritam Chatterjee

- B.Sc. Life Sciences
- **Dissertation:** National Institute for Research in Reproductive and Child Health, Mumbai, Maharashtra



Aditi Shedge

- B.Sc. Biotechnology
- **Dissertation:** Institute of Chemical Technology, Mumbai, Maharashtra



Kishan Karatt

- B.Sc. Biotechnology
- Dissertation: Sunandan Divatia School of Science, NMIMS, Mumbai, Maharashtra



Diya Chopawat

- B.Sc. Chemistry
- **Dissertation:** Institute of Chemical Technology, Mumbai, Maharashtra



Manali Sanjiv Akerkar

- B.Sc. Life Sciences
- **Dissertation:** Institute of Chemical Technology, Mumbai, Maharashtra



Kirti Prajapati

- B.Sc. Chemistry
- Dissertation: Sunandan Divatia School of Science, NMIMS, Mumbai, Maharashtra



Nupur Patil

- B.Sc. Life Sciences
- **Dissertation:** Advanced Centre for Treatment, Research and Education in Cancer, Navi Mumbai, Maharashtra



Nirali Prafulbhai Majithiya

- B.Sc. Life Sciences
- **Dissertation:** Indian Institute of Engineering, Gandhinagar, Gujarat



Mitali Gaonkar

- B.Sc. Microbiology
- Dissertation: IIT Bombay, Mumbai



Shrishti Maurya

- B.Sc. Life Sciences
- **Dissertation:** Bhabha Atomic Research Centre, Mumbai, Maharashtra



Akshata Sheelvantra

- B.Sc. Biotechnology
- **Dissertation:** Bhabha Atomic Research Centre, Mumbai, Maharashtra



Shriya Chaubal

- B.Sc. Life Sciences
- Dissertation: Centre for Cellular and Molecular Biology, Hyderabad, Telangana



Bhumi Thorat

- B.Sc. Biotechnology
- **Dissertation:** National Institute for Research in Reproductive and Child Health, Mumbai, Maharashtra



Dhananjay Hasurkar

- B.Sc. Microbiology
- Dissertation: Maulana Azad National Institute of Technology, Bhopal, Madhya Pradesh



Brahmi Shenoy

- B.Sc. Microbiology
- **Dissertation:** Indian Institute of Technology, Mumbai, Maharashtra



Dhvani Ganatra

- B.Sc. Biotechnology
- **Dissertation:** Sunandan Divatia School of Science, NMIMS, Mumbai, Maharashtra

WHY RECRUIT US?



ROBUST ACADEMIC FRAMEWORK

- Innovative Practical Pedagogies
- Strong technical literacy



GLOBAL EDUCATION APPROACH

- Global perspective on problem solving skills
- Global level of practical training



STRONG INDUSTRY CONNECT

- NMIMS's Centre of Scientific Excellence
- Industry Connect Initiatives



VIBRANT LEARNING ECO SYSTEM

- Multilateral development
- Industry Projects

COURSES STRUCTURE

SEMESTER 1

- Cell Biology
- Research Methodology
- Molecular Biology
- Biostatistics

- Human Evolutionary Genetics
- Analytical Techniques
- Soft Skills

SEMESTER 2

- Recombinant DNA Technology
- Immunology
- Bioinformatics
- Bioprocess Technology

- Computational Tools
- Corporate Initiation and Corporate Readiness skills
- Research Seminar

SEMESTER 3

- Molecular Oncology
- Omics
- Stem Cell Biology
- Biological Data Analysis

- Research Review
- Entrepreneurship, IPR, and Patenting
- Downstream Processing

SEMESTER 4

Dissertation

ELECTIVES - SEM 2

- Pharmacology and Toxicology
- Pathology
- Drug Discovery and Clinical Research
- Medical Microbiology

ELECTIVES - SEM 3

- Biomaterials and Tissue Engineering
- Molecular Oncology

SKILLS DEVLOPMENT IN UNDERGRADUATE STUDIES

SEMESTER 1

- Microbiology Techniques
- Communication skills
- Physical and Bioanalytical chemistry techniques
- Mathematical skills for biologists

SEMESTER 3

- Industrial Microbiology techniques
- Cell biology techniques
- Inorganic and Organic Chemistry techniques
- Biostatistical analysis

SEMESTER 5

- Molecular biology techniques
- Scientific poster, Review paper and SOP writing.

SEMESTER 2

- Biochemistry techniques
- Microbial physiology techniques
- Leadership skills
- Genetics
- Biophysical methods, spectrometric techniques

SEMESTER 4

- Immunological techniques
- Biochemistry techniques
- Excel and R programming

SEMESTER 6

- Medical microbiology techniques
- Bioinformatics skills

SKILLS DEVLOPMENT IN POST-GRADUATE STUDIES

SEMESTER 1

- R programming applications in biology
- Recombinant DNA technology, cloning and gene expression studies.
- Journal article presentation

SEMESTER 2

- Cancer biology techniques
- Analysis of genomic data
- Python programming
- Journal article presentation

SEMESTER 3

- Tools and techniques in research
- Animal tissue culture techniques
- Journal article presentation

SEMESTER 4

• Independent research project from a reputed research institute/ hospital/ university.

Internships

Student	Project Title & Institute	Tenure	
Aakanksha Upadhyay	TIFR- Huntment Lab, Mumbai, Maharashtra	2 Months	
Bhumi Thorat	Sun Pharma Advanced Research Company, Mumbai, Maharashtra	2 Months	
Brahmi Shenoy	Chemical Engineering Department, IIT, Mumbai, Maharashtra	2 Months	
Diya Chopawat	P.D. Hinduja Hospital, Mumbai, Maharashtra	2 Months	
Kirti Prajapati	Society for Innovation & Entrepreneurship, IIT, Mumbai, Maharashtra	2 Months	
Kishan Karatt	Abbott Pharmaceuticals, Mumbai, Maharashtra	2 Months	
Nirali Majithiya	Laurel Life Sciences, Bharuch, Gujarat	2 Months	
Nupur Patil	Centre for Technology Alternatives for Rural Areas, IIT, Mumbai, Maharashtra	2 Months	
Shriya Chaubal	CSIR-CCMB, Hydrabad, Telangana	2 Months	



Eureka is a student-run online monthly newsletter by Sunandan Divatia School of Science (SDSOS), NMIMS, Mumbai. Eureka celebrates discovery in the filed of science by way of writing articles about discovery and advancement in science in its monthly issues. Starting in 2019, Eureka has released four volumes. The first issue of the fifth volume is underway and will be released on 30th July 2024.

Eureka interviews many notable scientists, academics, entrepreneurs and industrialists from varying disciplines to give insight into their journey and research. Some notable interviewees include:

- Dr. Pragya Yadav (Scientist F, ICMR-NIV Institution)
- Dr. Divya Rathod (Founder, Silvery Nanos)
- Ms. Atousa Khiabany (Medical Student & YouTuber)
- Dr. Shubha Tole (Principal Investigator, TIFR)

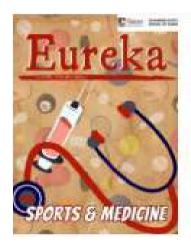
Eureka's social media presence is spread:

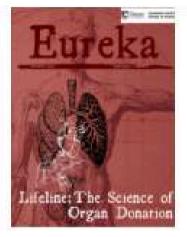
- Wordpress
- Instagram
- Facebook
- LinkedIn

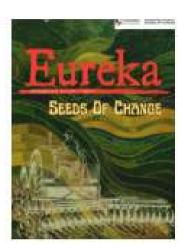
Check out Eureka here: https://linktr.ee/EurekaSDSOS

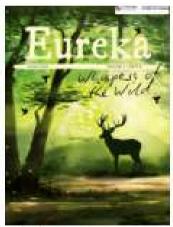
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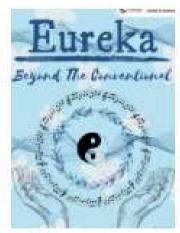
Volume 5 Themes

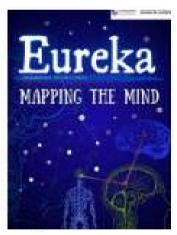


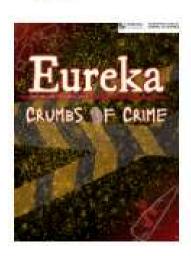


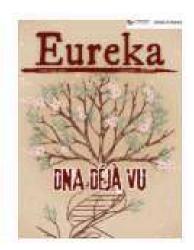


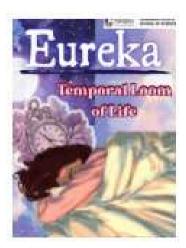












INDUSTRIAL VISITS

ACTREC CAR-T Cell Laboratory (2nd February 2024)

The students of 4th year Biomedical Sciences & 1st year M.Sc in Biological Sciences got an opportunity to visit the Advanced Centre for Treatment, Research and Education in Cancer (ACTREC) a the state of art of R&D wing of the Tata Memorial Centre. GMP facility was established in ACTREC that harnesses the power of the immune system to fight cancer.

The students were invited to visit the GMP lab as a part of the SACT Conference.

All the laboratory equipment including the biosafety cabinets along with the ongoing research was explained in great detail.



INDUSTRIAL VISITS

miBiome Therapeutics (26th February 2024)

miBiome Therapeutics is an advanced science and deep-tech start-up company comprising experienced scientists, doctors, and young coders. They use the latest coding techniques to ease the genome sequencing process. They house multiple equipment's such as Illumina and Oxford Nanopore models for carrying out Next-generation sequencing (NGS).

The students of 4th year Biomedical Sciences were shown and taught about the day-to-day process of the laboratory. They were also made aware about the commercial applications and need of such integration between biology and data sciences



INDUSTRIAL VISITS

Lupin Limited (2nd April 2024)

Lupin Limited is a multinational pharmaceutical company with its Tarapur facility being one of the key manufacturing units. The students of 3rd & 4th-year Biomedical Sciences were guided by employees about different parts of the plant including warehouse facilities, fermenters, and QC labs. The visit showcased the process behind API formulations with utmost effectiveness by providing students with relevant exposure to storage and manufacturing protocols. It helped gain insight into the operational and translation that goes into converting lab experiments into commercial productions. It gave a broader view of how industry works and what all goes in developing a single API.



TESTIMONIALS

Suvrat Chaturvedi

My time at SDSOS proved to be an intellectually stimulating and enriching experience. The curriculum effectively balanced theoretical knowledge with practical research opportunities, fostering a well-rounded learning environment. Active participation in extracurricular activities provided a valuable outlet for stress management while simultaneously cultivating essential life skills. SDSOS instilled a strong sense of scientific integrity within its students, alongside a comprehensive understanding of fundamental biological principles.



Aakanksha Upadhyay

After completing my bachelor's degree, I sought a more comprehensive postgraduate degree. SDSOS's M.Sc. Biological Sciences coursework offered a diverse range of disciplines, which drew me in and they did not disappoint. My hands-on laboratory experience at SDSOS has been out of this world! Participation and Volunteering for events has been helpful in nurturing my aptitude. SDSOS has provided me with memorable experiences.

Avantika Kamat

SDSOS was an incredible journey filled with valuable learning experiences and moments of deep reflection. The curriculum was a perfect balance between theory and hands-on research. Being involved in extracurricular activities and student council committees was a great way to manage stress and develop life skills. SDSOS truly cultivates scientific integrity and a deep understanding of core biological principles.



TESTIMONIALS

Ritam Chatterjee

The coursework was truly engaging, offering subjects that are highly relevant to the research field. In addition to the regular classes, numerous co-curricular and extracurricular activities were organized. Overall, it was a good experience, and the faculty was very supportive and interactive.





Aditi Shedge

I am immensely grateful for my time spent in the Master's in Biological Science program at Sunandan Divatia School of Science, NMIMS. This program has enriched my understanding and passion for the biological sciences, providing a foundation for my academic and professional future. From the outset, the curriculum was thoughtfully designed to cover a broad spectrum of ranging from molecular biology to genetics environmental science. The comprehensive coursework and handson laboratory experience helped me to gain a deep and practical understanding of biological concepts. The faculty are not only experts in their fields but also dedicated mentors who were approachable and eager to support my academic journey. Furthermore, the program's strong emphasis on professional development ensured that I was well-prepared for my career. It has not only deepened my expertise in biological sciences but also prepared me to contribute to the scientific community. I wholeheartedly recommend this program to anyone seeking a rigorous, supportive, and enriching graduate education in biological sciences.

HIRING ORGANIZATIONS

<u>Industry</u>



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HIGHER EDUCATION







16%



8%

HEALTHCARE

8%

MARKETING

























PLACEMENT COMMITTEE



Placement Coordinator - Mrs. Priyanka Patil Email: <u>priyanka.patil@nmims.edu</u> Tel: +91 9764466180



Placement Committee President -Mr. Suvrat Chaturvedi Email: suvrat.chaturvedi015@nmims.in



Placement Committee Vice President - Ms. Shreya Agiwal Email: shreya.agiwal02@nmims.in



Placement Committee Coordinator - Ms. Nirali Majithiya Email: nirali.majithiya@nmims.in

CONTACT US

SUNANDAN DIVATIA SCHOOL OF SCIENCE

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Bhaktivedanta Swami Marg, V.L. Mehta Road,

Vile Parle (W), Mumbai 400 056. India

Timings: 10.00 a.m. to 1.00 p.m. and 2.00 p.m. to 5.00 p.m.

(Except Public holidays and Sundays)

Tel No.: +91-22-4235 5959/ 4235 2249

FOR ADMISSION RELATED ENQUIRIES

Tel No.: +91-22-4235 5959/ 4235 2249

Email: <u>admissions.sos@nmims.edu</u>

UNIVERSITY ADDRESS

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