

SHARDA SCHOOL OF BIO-SCIENCE & TECHNOLOGY



SHARDA **UNIVERSITY**

ONE CAMPUS-A WORLD OF POSSIBILITIES

Since its inception in 2009, Sharda University has emerged as one of the premier centers for education, research and innovation in the Delhi NCR region. With a steadfast commitment to academic excellence, Sharda has been honored as one of South Asia's top institutions by the QS Asia University Rankings 2024. Its prestigious A+ accreditation from NAAC and a remarkable NIRF ranking of 86 in India affirm Sharda's position among the nation's elite Universities.

But Sharda is more than rankings—it's a global community, with students from over 95+ countries, Sharda fosters an inclusive, multicultural campus that goes beyond traditional learning. This vibrant community is a melting pot of cultures, ideas, and perspectives, preparing students for a future where global collaboration is a key.

Driven by the motto, "The World is Here, Where are You?" Sharda University invites you to join a thriving environment that celebrates diversity, nurtures curiosity, and empowers students to become leaders on the world stage. Here, students are not just educated, they are transformed!!



PRESTIGIOUS RECOGNITIONS & ACCREDITATIONS



SHARDA UNIVERSITY NIRF RANKING 2024

IN UNIVERSITY **CATEGORY**

INNOVATION ENGINEERING

11-50th 101-150th

TIMES ENGINEERING

National Ranking 2024

RESEARCH

OVERALL PLACEMENT RESEARCH



Higher Education

Times

th WORLD UNIVERSITY NATIONAL RANKING



BOARDS OF TIFR 1

B.TECH. PROGRAMMES: CSE • Civil • ME • Biotech. • EEE • ECE



9*
SOUTH
EAST ASIA







SHARDA SCHOOL OF **BIO-SCIENCE & TECHNOLOGY**

School of Bio-Science & Technology at Sharda University offers a wide array of undergraduate, postgraduate, and doctoral programmes in life sciences and biotechnology. The department is committed to bridging the gap between theory and practical, with a focus on modern biotechnology and its applications.

The curriculum is designed to integrate biological sciences with engineering, incorporating hands-on lab experience and research projects. The department's cutting-edge research includes molecular biology, genetic engineering, bioinformatics, biochemistry, plant biotechnology, microbiology, zoology, animal biotechnology & environmental biotechnology. Students are equipped with the knowledge and skills needed for careers in industries, research institutions, and higher education.



KEY FACTS & FIGURES

- All faculties are Ph.D. holders from reputed national & Centre of Excellence in Artificial Intelligence in International institutions.
- Well equipped laboratories and research facilities.
- Many research projects sponsored by various funding agencies like DST, DRDO, MSME, MOES, ISRO, USAID, ICMR, DBT.
- Guidance for competitive examinations such as NET/GATE. A number of students have cleared such exams and have got admission in IITs/IISC/NITs reputed institutions around the globe.
- Separate library, laboratories, well-equipped classrooms, ICT enabled and workshops for hands-on training of the students.

RESEARCH CENTRES

- Medicine, Imaging & Forensics
- Bio-POSITIVE (Biological-Platform of Scientists, Innovators, & Technologists for Inventions for Vital Environment) Lab.
- Special centre for Plant Molecular Biology.
- Centre of Excellence in Virology & Immunology.
- Centre for Development of Bio Materials.
- Centre of infectious disease.



FACULTY THAT'S TRULY INSPIRING



Prof. (Dr.) Baishnab Charan **Tripathy Distinguished Prof & Dean** Area of Research: Plant Photobiology



Prof. (Dr.) Seved E. Hasnain **Distinguished Professor** Area of Research: Infection Biology



Prof. (Dr.) Ramesh C Kuhad **Distinguished Professor** Area of Research: Microbial Biotechnology



Prof. (Dr.) Nasreen Z. Ehtesham **Distinguished Professor** Area of Research: Infection Biology



Prof. (Dr.) Vinod Joshi Area of Research: Virology and Immunology

Prof. (Dr.) Ramesh

Area of Research:

Plant Biotechnology

Dr. Subhabrata Kar

Associate Professor

Area of Research:

Disease Biology

Joshi



Prof. (Dr.) Satvawada R. Rao Area of Research: Plant Biotechnology

Prof. (Dr.) Saleem

Area of Research:

Food and Agriculture

Dr. Rashmi P. Singh

Associate Professor

Area of Research:

Protein Biology

Siddiaui

DEPARTMENT OF BIOTECHNOLOGY —



Prof. (Dr.) R. Raiesh Kannan, HoD Area of Research: Marine Biotech & Molecular Medicine

Prof. (Dr.) Amit Kumar

Area of Research: Protein

Dr. J. Muthukumaran

Associate Professor

Area of Research:

Protein Structural

Science & Biophysics

Singh







Dr. Monika Jain Associate Professor Area of Research: Protein Structural Biology & Infectious Diseases



Dr. Soumi Sadhu Associate Professor Area of Research:



Dr. Bennet Angel Associate Professor Area of Research: Virology



Dr. Annette Angel Associate Professor Area of Research: Virology



Dr. Md Azizur Rahman Associate Professor Area of Research: Environmental Biotechnology



Dr. Sanjay Kumar Associate Professor Area of Research: Cancer Biology & Drug



Dr. Soumya Pandit **Associate Professor** Area of Research: Bioprocess Technology



Dr. Piyush Kumar Gupta Associate Professor Area of Research: Phytonanomedicine & **Biomaterials**



Dr. Garima Chouhan Associate Professor Area of Research: Parasitology & Infection **Immunology**





DEPARTMENT OF LIFE SCIENCES



Prof. (Dr.) Sushant Singh Area of Research: Nanobiotechnology



Infection Immunology



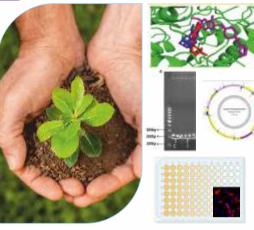


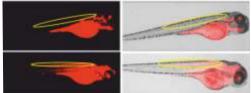












Top Recruiters:































DEPARTMENT OF BIOTECHNOLOGY

The Department of Biotechnology is successfully running B.Tech., M.Tech., M.Sc. and Ph.D. Programmes in Biotechnology. The department is facilitated with basic and modern infrastructure needed to conduct Bioengineering teaching cum research in modern and advanced Biological engineering by manipulating microbes, plants and animals for the societal demands. The department is housed

in a building consisting of smart classrooms with audio-visual facilities with lecture and seminar halls. The department is well – equipped with research laboratories such as Molecular Biology,

Biochemistry, Genetic Engineering, Plant Tissue culture, Microbial Technology, Nano Biotechnology, Bioinformatics etc.

The students undergo research projects and hands on training in plant biotechnology, molecular biology, infectious disease biology, immunotechnology etc.

Milestones:

The faculty members have published more than 300 papers in high impact and peer reviewed journals. The students and faculties have been granted with 15 Patents with novel technology and significant findings in the area of Biotechnology. The department offers specialized courses, Value added courses including foreign language, research based hand-on trainings

by industry experts to support industrial placements. The department have attracted research grant with a tune of INR 3 Crore from DBT, ICMR, DST & CSIR in the areas of protein science, plant biotechnology and crop improvement, parasitology, host-pathogen interactions,

The department have collaborated with Institute of Nuclear Medicine and Allied Science (DRDO LAB, Delhi), Institute of Genomics and integrated biology (CSIR LAB, Delhi),

Indian Institute of Technology (IIT-D), Delhi, Jawaharlal Nehru University, Indian Agriculture Research Institute, etc.

Laboratories:

- Cell & Molecular Biology Lab Bioprocess Engineering. Lab Food Biotechnology Lab
- Biochemistry & Biotechnology Lab Plant Growth Chamber Stem Cell Genetic Engineering
- Bioinformatics Lab Immunology & tissue processing Lab Animal Biological Lab

Major Recruiting Sectors:

- Biotechnology Companies Pharmaceutical (R&D)
- Diagnostic Laboratories Hospitals Food & Brewery Stem Cell & Tissue Engineering

Programmes Offered:

B.Tech. - Biotechnology (NBA Accredited)

B.Tech (BT) Specializations in: • Agricultural & Plant Biotechnology

• Computational Biology • Genetic Engineering • Stem Cell & Tissue Engineering

B.Tech. - Food Technology

Specializations in Food Safety & Quality Assurance

M.Sc.-- Genetic Engineering

M.Tech. - Biotechnology

• Animal Biotechnology • Bio-Engineering & Bio-Informatics • Genetic Engineering • Plant Biotechnology

M.Tech.- Food Process Technology

Ph.D in Biotechnology

Ph.D in Food Technology







Programmes Offered: B.Sc./B.Sc.(Hons/Research)

- Biotechnology
- Food Science & Technology
- Microbiology
- Zoology

M.Sc.

- Biotechnology
- Food Science & Technology
- Immunology
- Microbiology
- Virology
- Zoology

Ph.D. in Life Science

DEPARTMENT OF LIFE SCIENCES

(Funded by DST-FIST, Govt of India)

The Department of Life Sciences offers undergraduate and postgraduate courses in various disciplines such as Biotechnology, Microbiology, Food Science and Technology, Life Science (Botany and Zoology), Industrial Microbiology and Molecular Biology. All these courses encompass promising areas of research and employability. The Department has well equipped laboratories for research and routine lab experiments. The faculty members are dynamic and pursue interdisciplinary research in the areas of plant biotechnology, crop improvement, protein biochemistry, drug discovery, virology, fermentation and industrial biotechnology, food processing and development of novel food products.

Career Prospects:

- Biotech & Pharmaceutical (R&D) Industry Diagnostic Laboratories Hospitals
- Food & Brewery Industry Marketing Research IP

Laboratories:

- Cell and Molecular Biology Laboratory Microbiology Laboratory
- PlantTissue Culture Laboratory Animal Cell Culture Laboratory Virology Laboratory
- Bioprocess engineering Laboratory Biochemistry & Enzyme Engineering Laboratory

Projects/Workshops/Conferences (National & International):

- E-Workshop on "Laboratory Practices and Ethics".
- 3 days symposium cum training workshop on "Resilience pathways for natural & manmade disasters"
- Industrial Visit to Yakult Danone Pvt. Ltd. Sonipat Haryana.
- An educational tour has been arranged by the Department for B.Sc. Zoology students to Bharatpur.
- Several research papers have been published in various peer-reviewed journals.
- Regularly organises workshops on various research activities.
- A MoU was recently signed between AIBTM, Greater Noida and Sharda University.
- At present many projects funded by Government agencies like DBT, DRDO& INSA are running in the Department.
- Department also organizes scientific talk by eminent scientist from India and abroad time to time.

Achievement.

Project-There are currently 13 government-funded projects in the department of life sciences, with a total budget exceeding 7 crore. The project investigators are funded by DST, DRDO, ICMR and NMPB, MoAyush.

Patents: The students and faculties have filed and granted 61 patents in the areas of nanobiotechnology, bioenergy and biomedical applications.

The faculties are serving as the editor co editor of Springer Nature, BMC, Elsevier publications in the areas of life science research. The faculties have been awarded with National and International recognitions. They are serving as a life member of different academic societies like INSA, Indian society of Immunology, Association of Microbiologists of India.

LAB FACILITIES

BIOTECHNOLOGY

- Molecular Biology Lab
- Bioinformatics Lab
- Hydroponics and Plant Tissue Culture Facility
- Microbial Technology Lab
- Immunology and Tissue Processing Lab
- Bioprocess Engineering Lab
- Biosafety Level II and Cell culture Facility
- Transgenic Greenhouse Facility
- Bioseparation Facility
- Food Science and Technology Lab
- Biotechnology Core Facility
- Protein Science Lab
- Plant Biotechnolgy Lab





MAJOR EQUIPMENTS IN TEACHING & RESEARCH LABS

- Flow cytometer: BD Biosciences
- UV-Vis Spectrophotometer: Shimadzu Japan & Thermo USA
- Centrifuge: Thermo, Sarvall & Eppendorf
- PCR Machines: BioRad
- ELISA Plate Reader: BioRad and Thermo, USA
- Protein Purification system
- Fermentor 5 Litre & 10 Litre
- Lyophilizer
- HPLC
- Gas Chromatography

Gel documentation

- gPCR Machine
- CO2 Incubator
- Fluorescence Microscope: Nikon
- -80 Deep Freezer
- Optical Microscope: Leica
- Evos Microscope: Phase Contrast
- Kjeldahl
- Microbiological Chamber: 8 Nos
- Biosafety Cabinet for Cell Culture
- Millipore Water Purifications System

LIFE SCIENCE

- DST-FIST Sponsored Facility
- · Disease and Infection Biology Lab,
- Industrial Biotechnology Lab
- Protein Biochemistry & Drug Discovery Lab
- Plant Biotechnology & Hydroponics Lab
- Computational Biology Lab
- Food Science and Technology
- Bio-separation and Downstream Processing Lab
- Centre for Phytochemical Research.



INDUSTRY CONNECT PROGRAMS



A Visit to Moon Beverages Pvt. Ltd, a Coca-Cola FBO in Greater Noida



Outreach Programme under Community Connect for locals of Faridpur, Village, Bulandshahr



Organised academia and Industrial meet with Yakult Danone India Pvt. Ltd. Sonipat Haryana

PATENTS, RESEARCH PUBLICATIONS

BIOTECHNOLOGY

The faculty members of the department have published 300 papers in high impact factor peer-reviewed journals and 15 Patents.

Research grant upto Rs. 3 Crore from different Government funding agencies such as DBT, ICMR, DST & CSIR.

Collaborated with national and international institute namely Institute of Nuclear Medicine and Allied Science (DRDO LAB, Delhi), Institute of Genomics & integrative biology (CSIR LAB, Delhi), Indian Institute of Technology (IIT-D), Delhi, Jawaharlal Nehru University, Indian Agriculture Research Institute, etc.

B.Tech. biotechnology students have been trained in industrial connect laboratories in collaboration with Biotech firms for Industrial placements.

LIFE SCIENCE

Project-There are currently 13 government-funded projects in the department of life sciences, with a total budget exceeding 11 crore. The poject investigators are funded by DST, DRDO, ICMR and NMPB, MoAyush & projects of 5.7 crores ongoing.

Patents-The Department of life sciences has filed 61 patents in various areas such as nano materials, nano composites, bio energy, microbial fuel, and antimicrobial materials, with the involvement of both faculties and students. Out of 33 patents following patents are granted and published.

From last 5 years, 61 patents, 400 Publications & 270 book Chapters are published in various international and national journals.



NATIONAL/INTERNATIONAL CONFERENCE

Following workshops were organized in the School:

- 1 International Conference on Biotechnology for Sustainable development Goals (ICBSDG) 2025.
- 2 Indo-UK Lecture Workshop on Translational Medicine-2024
- 3. Centre for Development of Biomaterials and Department of Life Sciences organized.
- 4. Department of Life Sciences, in association with association of Microbiologists of India, organized a week-long Faculty Development Program on "Subject-Specific Benchmarking as a tool for Outcome-Based Teaching and Learning" in August, 2024
- 5. National symposium on "Next-Generation Drug Delivery System" on 26th-27th December 2024.
- 6. Department of Life Sciences, organized National Conference on Contemporary
- 7. Advances in Interdisciplinary Sciences (NCCAIS-2024)" from 4th April 2024 to 6th April, 2024.
- 8. Department of Life Sciences organized two days' workshop on "Good Laboratory Practice and Research Ethics" in June 2024 for the internal research scholars.
- 9. Department of Life Sciences organized E-waste awareness program in collaboration with inclusive recycling foundation.



PATHWAY TO GLOBAL LEARNING

SSBT is having International collaboration with

- Johannesburg University, South Africa
- Chonam National University, South Korea
- National Ilan University, Taiwan
- Purdue University, USA
- · Michigan State University, USA

GOVERNMENT FUNDED PROJECTS

In School of Bio-Science & Technology INR 10 crores of fund received from Ministry of Science and Technology, Goyt. of India.

RISING ST★RS OF SHARDA



Nayan Jain B.Tech.- Biotechnology IIT Guwahati



Aayushi Singh B.Tech.- Biotechnology Placed at Defmacro Software Pvt. Ltd. Banglore



Saswata Das Pursuing M.Tech Biotechnology VIT Vellore



Riya Tiwari B.Tech.- Biotechnology Case Western Reserve University



Anugrah Micheal
Pursuing
M.Tech Biotechnology
VIT Vellore



Himanshu Raj Pursuing M.Tech Biotechnology IIT Mandi



Harisudhan Masters in Biomolecular Medicine, University of OldenBurg, Germany



Shaikh Shuhail M.Tech Bioinformatics IIIT Delhi GATE 2023 AIR 760



Himanshu Sati B.Sc.- Biotechnology Placed at Phronesis Partner



Mansi Panwar
B.Sc.- Zoology
Placed at SR Institute of
Advanced Ayurvedic Sciences



Somya Mishra
B.Sc.- Biochemistry
Placed at
Gomedii



Areeb Siddique
B.Sc.- Biotechnology
Placed at
TalentServe



Lakshya Kumar Sinha B.Sc.- Biotechnology Placed at TalentServe



Shruti Priya B.Sc.- Biotechnology Placed at Accenture



Sakshi Saxena M.Sc.- Biotechnology IIT Indore AIR-11 GAT-BT 2024



Antarika Biswas
M.Sc.- Food Science & Technology
Placed at
ALS Genomics PVT. Ltd.



Chandrika M.Sc.- Biotechnology Placed at Prescient & Strategic Intelligence



Mohit Chaudhary M.Sc.- Microbiology Placed at ACS Global Tech Solution

Vaishali Joshi

M.Sc.- Biotechnology

Placed at

Zyla Health



Tirtharaj Datta GATE 2024 AIR 563, AIIMS Entrance AIR 32



Deeksha GudlaM.Sc.
Ph.D from Nicolus Copernicus
University, Torun



Anjali M.Sc. Ph.D from University of Nova Gorici, Slovenia



Rohit Kumar Ranjan B.Sc. Biotechnology Ph.D from National Tsing Hua University, Taiwan



Ritika Singh M.Sc. Ph.D from University of Naples Federico II, Italy



Ekampreet Singh Max Planck Institute of Biochemistry



Shumaila Noor M.Sc.- Food Science & Technology Placed at Earth Crust Private Limited

B. Tech/M. Tech Biotechnology Students Placed in BSP Diagnostic Systems Pvt. Ltd.



Prachi Mallik Pragati Nigam Ishika Verma

B. Tech/M. Tech Biotechnology Students Placed in Jubiliant Foodworks



Apoorva Raj She Dhruv Garg Ta Greeshma Vic Kajal Rana Ya Pratibha Shi

Sheeba Rashid Tanya Sindhu Vidhi Mishra Yashika Shivaji Pal

B.Sc./M.Sc. Students Placed in Health ARX Technologies Pvt. Ltd.



Anamta Bi Manasvi Khatana Meenal Pradeep Sumit Ghosh Ragini Mishra

B.Sc./M.Sc. Students Placed in Diagnopein



Tanya & Aayushee Srivastava

REGIONAL REACH-SHARDA COUNSELLING CENTRES

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