SATYENDRA NATH BOSE
NATIONAL CENTRE FOR BASIC SCIENCES

Block – JD, Sector – III, Salt Lake, Kolkata – 700106

No. SNB/AP-5-520/A-179 Date: Feb 20, 2026

Detailed Advertisement for

Direct admission into the Ph.D. Programmes in
Physical, Chemical & Biological Sciences
Academic Year: 2025-2026

The **S. N. Bose National Centre for Basic Sciences** (**SNBNCBS**) invites applications with consistently good academic record (First Division/Class) to apply for Admission into the Ph.D. Programme in Physical, Chemical & Biological Sciences for the academic year 2025-2026.

- ✓ The applicants are expected to be motivated to make a career in Research.
- ✓ The programme is **fully residential** and the students are offered on-campus accommodations and boarding facilities. Externally funded students may stay off campus if permitted by the Competent Authority.
- ✓ The students, after registering with a Research Supervisor, have to undertake prescribed Course Work Programme. Students will be awarded Doctoral degree based on the PhD. registration made in the University of Calcutta / Jadavpur University / Presidency University, West Bengal.

The details of the Admission Programme are furnished below:

[A] Department-wise Admission Criteria

Department of **Astrophysics & High Energy Physics (AHEP)**	
Focused Research Areas for Admission:	➢ Star formation and Pre-main Sequence stars ➢ Spectroscopic studies of Novae, Wolf-Rayet, and Planetary Nebulae ➢ Low-mass stars, Brown dwarfs, and Exoplanets ➢ Black hole Physics, dark matter, and dark energy ➢ Quantum Information Theory ➢ Theoretical High Energy Physics, Quantum Field Theory, String Theory
Basic qualification:	Masters in Science or Technology in the subjects **Physics** and **Applied Mathematics** / BTech in Engineering Physics or allied subjects with First Class / Division i.e., minimum 60% (55% for SC / ST / OBC (non-creamy layer) / EWS / Differently-abled candidates).

Further Qualifications:	CSIR-NET-JRF */ UGC-NET-JRF *with award letter having validity at least upto September 2026.

(* *Should have validity of the Score/ Award letter at the time of admission.)*

Department of **Chemical & Biological Sciences (CBS)**	
Focused Research Areas for Admission:	**Focused Research Areas for Admission:** ➢ Experimental Biophysical Chemistry ➢ Experimental LASER Spectroscopy, Ultrafast LASER Spectroscopy ➢ Biomedical Optics ➢ Optical Physics, Nano-Photonics and Plasmonics ➢ Physical Chemistry, Chemical and Soft Matter Physics, Biophysics ➢ Theoretical & Computational Chemistry ➢ Materials Chemistry, Porous Materials, Photocatalysis, Electrocatalysis ➢ Mechanobiology, mechanochemical signalling, magnetic tweezer, single molecular technologies ➢ Cell and molecular biology, cancer biology ➢ Computational biology, bioinformatics
Basic qualification:	Masters in Science or Technology in the subjects **Chemistry, Physics, Biophysics, Biochemistry, Biotechnology, Microbiology, , Bioinformatics, Computational Biology, Biological Sciences, Applied Optics and/or Photonics, Applied Physics, Electronics, Material Science** / BTech in Engineering Physics or allied subjects with First Class / Division i.e., minimum 60% (55% for SC / ST / OBC (non-creamy layer) / EWS / Differently-abled candidates).
Further Qualifications:	CSIR-NET-JRF*/ UGC-NET-JRF* with a valid award letter having validity at least upto September 2026.

(* *Should have validity of the Score/ Award letter at the time of admission.)*

Department of **Condensed Matter & Material Sciences (CMMP)**	
Focused Research Areas for Admission:	➢ Physics of Materials ➢ Theoretical and Computational Condensed Matter Physics ➢ Electronic Structure ➢ Ultrafast spin Dynamics and spintronics ➢ Electron transport in nanoscale devices ➢ Electronic and magnetic properties of topological materials ➢ Materials and devices for quantum technology ➢ Resistive memory devices for neuromorphic applications ➢ Quantum many-body theory, Critical phenomena, and Quantum

	topological phases ➢ Photoemission spectroscopy studies of topological systems
Basic qualification:	Masters in Science or Technology in the subjects **Physics, Chemistry, Applied Mathematics, Engineering Physics, Electronics, Nanotechnology, Material Sciences** / BTech in Engineering Physics or allied subjects with First Class / Division i.e., minimum 60% (55% for SC / ST / OBC (non-creamy layer) / EWS / Differently-abled candidates).
Further Qualifications:	CSIR-NET-JRF */ UGC-NET-JRF* with award letter having validity at least upto September 2026.

(* *Should have validity of the Score/ Award letter at the time of admission.)*

Department of **Physics of Complex systems (PCS)**	
Focused Research Areas for Admission:	**Focused Research Areas for Admission:** ➢ Many-body entanglement ➢ Quantum Information Theory ➢ Statistical physics (equilibrium and non-equilibrium) ➢ Quantum many-body theory, topological phases of matter ➢ Mesoscopic Physics ➢ Biological Physics
Basic qualification:	Masters in Science or Technology in the subjects **Physics** and **Applied Mathematics** / BTech in Engineering Physics or allied subjects with First Class / Division i.e., minimum 60% (55% for SC / ST / OBC (non-creamy layer) / EWS / Differently-abled candidates).
Further Qualifications:	CSIR-NET-JRF / UGC-NET-JRF*with award letter having validity at least upto September 2026.

[C] Age Limit:

None . However, the last qualifying University examination (Masters in Science/Technology) should have been taken not earlier than 2023.

[D] Fellowship: As per GOI rule/ Funding agency.

[E] Tuition Fee:

Currently Rs. 13,000/- each year is payable in two equal instalments at the beginning of the Autumn and Spring Semester.

[F] Application Procedure:

Interested candidate need to send detailed C.V mentioning their research interest, valid CSIR/UGC score card/award letter with choice of supervisor (up to three names), in order of preference to **admission@bose.res.in**

If recommended by the concerned supervisor/s, further admission procedure will be made and intimation to the applicant will be done in due course of time through email only. SNBNCBS holds full right of choosing a candidate and even not selecting any, in case suitable applications are not received.

[H] General Information:

- In matters of admission, the decision of the Director of the Centre is final and binding
- For any academic/official query, please write to: admission@bose.res.in .

Sd/-
DEAN (ACADEMIC PROGRAMME)

About The Centre:

The Centre is a premier autonomous research institute under the Department of Science and Technology, Government of India. In addition, the Centre receives extramural funding from various funding agencies of India and abroad for its different research programmes. The Centre has extensive collaborative programmes with other premier institutions in India and abroad through bi-lateral exchanges in which the PhD research scholars take active part. The Centre is fully equipped with the state-of-the art infrastructure (experimental and computational) including a digital library for advanced research in chosen areas of Physical, Chemical, Biological and Mathematical Sciences. The research programme in biological sciences focuses on the areas of overlap with chemical and biophysical problems. Students joining the centre get contingency grants to meet research contingency expenses that include expenses for attending conferences and training programmes in India. The students also get generous support to attend International Conferences outside India. The Alumni of the Centre have gone on to work in academic and research sectors in India and abroad. The Centre offers an excellent atmosphere for academic development of students.

For research profiles of the members of the Faculty and for the facilities available, for more details please visit **http://www.bose.res.in**