



**NATIONAL INSTITUTE OF SCIENCE EDUCATION AND RESEARCH
BHUBANESWAR**

Advt.No:NISER/ACAD/Ph.D/2021-22 (2)

Notice for Admission to Ph.D Program: 2021-22 (Winter Session)

Applications are invited from Indian citizens for admission in the Ph.D program scheduled to commence from **3rd January 2022** in the following schools of NISER, Bhubaneswar:

- 1. School of Biological Sciences (SBS)**
- 2. School of Chemical Sciences (SCS)**
- 3. School of Computer Sciences (SCPS)**
- 4. School of Mathematical Sciences (SMS)**

1. Eligibility

School	Minimum Educational Qualifications
Biological Sciences	60% or equivalent GPA in Masters or M. Tech or M. Pharm in any branches of Agricultural Sciences, Biology, Life Sciences, Pharmacy (any specialization), Veterinary Sciences, Computer Sciences, Bioinformatics and Biotechnology. Students with Master's degree in Physics, Chemistry or Mathematics having interest in pursuing a career in Biology are also encouraged to apply.
Chemical Sciences	60% or equivalent GPA in Masters in Chemistry or allied Chemistry fields. Student with Master's degree in any branches of Basic Sciences with undergraduate degree in Chemistry (or chemistry as one of the subjects) or M.Tech in applied Chemistry or Computer Sciences with interest in pursuing a career in Chemistry are also encouraged to apply.
Computer Sciences	60% or equivalent GPA in Masters in Computer Science/Mathematics/Electronics/Electrical Engineering or related fields.
Mathematical Sciences	60% or equivalent GPA in Master's degree examination

2. Requirement of Qualifying in National Level Examinations for pursuing Ph.D program

School of Biological Sciences - Candidates should have qualified at least one of the National Level Examinations i.e. CSIR-UGC-NET(LS or JRF) /GATE/JEST/GPAT/DBT/ICMR/JGEEBILS or any other equivalent national level examination valid for the academic year 2021-2022.

School of Chemical Sciences - Candidates should have qualified at least one of these National Level Examinations i.e. CSIR-UGC NET (LS or JRF)/GATE valid for the academic year 2021-2022.

School of Computer Sciences –Candidates should have qualified at least one of these National Level Examinations i.e. CSIR-UGC-NET(JRF)/GATE/JEST valid for the academic year 2021-2022.

School of Mathematical Sciences - Candidates should have qualified at least one of these National Level Examinations in **Mathematical Sciences** i.e. CSIR-UGC-NET (JRF only) /GATE/NBHM* or any other equivalent national level examination valid for the academic year 2021-2022.

- *A student will be considered to be qualified in National Level Written Examination conducted by NBHM if he/she has received call letter from NBHM to appear in the interview for PhD fellowship 2021 (irrespective of getting selected for NBHM PhD fellowship 2021 or not).*
- *The names of shortlisted candidates for School of Mathematical Sciences who had applied in response to the admission notice published in July 2021 (2021-22 summer session) is uploaded on the NISER website and they need not apply again.*

Important Note:

- (a) The cut off marks for national examination such as GATE/JEST/GPAT/NBHM/JGEEBILS/CSIR-UGC-NET etc will be further decided by each School for the relevant subject area.
- (b) As per HBNI Ordinance, student having DST INSPIRE Doctoral Fellowship ONLY, without qualifying any other national level written examination as mentioned above at S.No 2, will not be considered for admission to Ph.D program in NISER.
- (c) Candidates with GPA in qualifying degree may need to produce the conversion note (in case it is not mentioned in their mark sheet) from their institution towards calculation of percentage.

3. Fellowship

1. Students with institute fellowship from NISER will be eligible to draw Rs. 31,000/- for first two years, which will subsequently be enhanced to Rs. 35,000/- for remaining three years, subject to the condition that he/she fulfills all the requirements of the Institute that will be stipulated from time to time.
2. Students with external fellowship from agencies viz. CSIR, UGC etc will be eligible to draw fellowship as per the extant rules of the respective funding agencies.

4. Research Areas for some Schools

School of Biological Sciences

- Regulation of cell adhesion and signaling in gastric cancer progression. (Dr. Asima Bhattacharyya Lab)
- Regulation of cell structure and functions by thermosensitive TRP ion channels (Dr. Chandan Goswami Lab)
- Role of the microbiome in gut-adipose-brain axis (candidates with the bio-informatic background are preferred). (Dr. Palok Aich Lab)
- Interaction of light and auxin in shaping development in plants; Role of splice variant of CONSTANS, CO like and GIGANTEA in the regulation of Florigen (Dr. Kishore C. Panigrahi Lab).

- Cell Mediated Immune responses (CMI) associated to altered T cell and Macrophage responses towards Infection Immunity and Cancer Immunity (Dr. Subhasis Chattopadhyay Lab)
- Neuroendocrine regulation, Neural circuitry of energy balance and reproduction (Dr. Praful S. Singru Lab)
- Cellular Regulation of morphogenesis and degradation of complex cell shapes (Dr. Renjith Mathew Lab)
- Mechanism and regulation of nuclear remodeling: Role of dynamin related protein and Endoplasmic reticulum. (Dr. AbdurRahaman Lab)
- Structural and functional studies on mitotic apparatus of bacterial pathogens (Dr. Ramanujam Srinivasan Lab)
- Molecular Genetics and Epigenetics of Ageing Disorders: Neurodegeneration and Cancer (Dr. Debasmita P. Alone Lab)
- Molecular Microbiology: Functional significance of membrane proteins and mechanisms underlying bacterial persistence (Dr. Harapriya Mohapatra)
- Structure-and-function work on two component systems/transporters. (Dr. Rudresh Acharya Lab)
- Mechanism of membrane remodeling during host-pathogen interactions. (Dr. Mohammed Saleem Lab)

NOTE: The final number of seats filled will be the prerogative of the School and will depend upon several factors but not limited to vacancies in individual labs, suitability and aptitude of the candidate for a particular research area etc. For more information please visit: <https://www.niser.ac.in/sbs/page/faculty-and-area-research>. Number of student intake in these advertised areas will depend on the availability of seats with individual PIs.

School of Computer Sciences

Research Areas: Algorithms, Computational Geometry, Parameterized Algorithms, Machine Learning, Cryptography, Information Theory, and Coding Theory.

School of Mathematical Sciences

Algebraic Geometry, Algebraic Graph Theory, Cryptography, Differential Equations, Differential Geometry, Discrete Mathematics, Functional Analysis, Harmonic Analysis, Incidence Geometry, Number Theory, Probability Theory.

For more information please visit: <http://www.niser.ac.in/sms/professors>.

5. Selection Procedure

- The selection committee of the respective schools will short-list the candidates among those who meet the minimum educational qualifications and satisfy additional criteria which each school may set as deemed necessary.
- The short-listed candidates will be called for an interview, supplemented by a written test, if necessary, for the admission.
- Based on the academic record and the performance of the candidates in the selection process, the selection committee of the school will recommend candidates to the Chairman, Academic Council for admission to the Ph.D. program.
- All candidates called for the Test / Interview will be paid to and from single, second-sleeper class railway fare by the shortest route from their place of residence to the Institute. They have to produce evidence (railway ticket) in support of their claim.

6. How to Apply

- The application form has to be filled up online at <http://www.niser.ac.in> and candidates should follow stepwise instructions mentioned to complete the application submission process. At the time of application, along with this online form, the candidate should upload soft copy of the supporting documents as per the eligibility criteria.
- Candidates intending to apply for more than one school should fill up separate online application forms for each school with appropriate supporting documents.
- Two sealed letters of reference in the prescribed format with signature of the referee on the envelope should be produced by the student at the time of interview. The copy of the reference letter is available online.
- NISER does not demand any application fee from the candidates who apply for Ph.D program.

7. Important dates:

- Online application will be activated on – **01.10.2021**
- Last date for filling up online application – **31.10.2021**
- List of candidates short-listed for test/interview will be uploaded on NISER website during the second week of November. The dates for test/interview will also be announced therein.
- Each school will send the call letters to the candidates separately. Kindly refer to the website for the announcement of the selected candidates.
- The registration is scheduled to be held before commencement of classes. The dates will be communicated in due course of time.
- If you have any further query, kindly send an email to cpsbs@niser.ac.in, cpsc@niser.ac.in, cpsc@niser.ac.in, cpsms@niser.ac.in, for Biological Sciences, Chemical Sciences, Computer Sciences, Mathematical Sciences respectively.
- Applicants are encouraged to visit school web page for more information on research activities.

Address for communication and more details

Dean, Academic Affairs,
National Institute of Science Education and Research (NISER),
P.O.-Jatni, Dist-Khurda, Odisha-752050
Phone: 0674-2494013
Email: dean_aa@niser.ac.in

Checklist for application submission

During online submission, you will need to have the following ready with you for uploading;

- JPEG file of your passport size photo.
- JPEG file of your valid signatures.
- Birth Certificate/10th pass certificate in support of date of birth.
- Certificate in support of category (SC/ST), only if applicable.
- Certificate and mark sheets in support of passing qualifying examination i.e Master's degree. In case the original pass certificate is not issued by University then a certificate from the University on its letterhead with seal of the concerned authority certifying the completion of degree should be submitted.
- Certificate/document in support of qualifying national level examination(s) viz. CSIR-UGC NET/GATE/GPAT/DBT/ICMR/JEST/NBHM or any other as applicable.
- For students applying for Ph.D in Mathematics through NBHM PhD written test-2021 need to upload the interview call letter received from NBHM.

29th September, 2021

Associate Dean, Academic Affairs