Applications are invited from Indian citizens for admission to Ph.D program scheduled to commence from 26\textsuperscript{th} July, 2019 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 Humanities and Social Sciences (SHSS)
5. School of Mathematical Sciences (SMS)
6. School of Physical Sciences (SPS)

**Eligibility**

<table>
<thead>
<tr>
<th>School</th>
<th>Minimum Educational Qualifications</th>
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<tbody>
<tr>
<td>Biological Sciences</td>
<td>60% or equivalent GPA in Masters or M.Tech in any branches of Biology, Life Sciences, Pharmaceutical Sciences, Agricultural Sciences, 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.</td>
</tr>
<tr>
<td>Chemical Sciences</td>
<td>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.</td>
</tr>
<tr>
<td>Computer Sciences</td>
<td>60% or equivalent GPA in Masters in Computer Science, Electrical, Electronics Engineering or related fields, or Mathematics.</td>
</tr>
<tr>
<td>Humanities and Social Sciences</td>
<td>55% or equivalent GPA in Masters in Social Sciences and allied disciplines.</td>
</tr>
<tr>
<td>Mathematical Sciences</td>
<td>60% or equivalent GPA in Masters in Mathematics or Statistics or Computer Science.</td>
</tr>
<tr>
<td>Physical Sciences</td>
<td>60% or equivalent GPA in Master's degree majoring in Physics or M.E./M.Tech in Applied Physics.</td>
</tr>
</tbody>
</table>
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/GATE/JEST/GPAT/DBT/ICMR/JGEEBILS or any other equivalent national level examination valid for the academic year 2019-2020.

**School of Chemical Sciences** - Candidates should have qualified at least one of these National Level Examinations i.e. CSIR-UGC NET, GATE valid for the academic year 2019-2020.

**School of Computer Sciences** – Candidates should have qualified at least one of these National Level Examinations i.e. CSIR-UGC-NET/GATE/JEST valid for the academic year 2019-2020.

**School of Humanities & Social Sciences** – Candidates should have qualified at least one of the National Level Examinations i.e. UGC-NET/ICSSR fellowship or any other equivalent national level examination which is valid for the academic year 2019-2020.

**School of Mathematical Sciences** - Candidates should have qualified at least one of these National Level Examinations i.e. CSIR-UGC-JRF/GATE/NBHM* or any other equivalent national level examination valid for the academic year 2019-2020.

*Students who have appeared in the NBHM-PhD written test 2019 need not apply separately. They will be communicated by the School of Mathematical Sciences subject to the cut-off marks in the NBHM written test which will be decided by the school.

**School of Physical Sciences** – Candidates should have qualified at least one of these National Level Examinations i.e. CSIR-UGC-NET/GATE/JEST valid for the academic year 2019-2020.

**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) Those who have appeared for CSIR-UGC-NET examination held in December, 2018 and awaiting results may also apply. However, such candidates, if shortlisted have to produce the qualifying mark statement of CSIR-UGC-NET exam on the date of Ph.D written test / interview failing which his/her candidature will be rejected automatically.

(c) Student having INSPIRE Fellowship ONLY will not be considered for Ph.D admission in NISER as per HBNI Ordinance.

3. The fellowship given by NISER is Rs. 25,000/- for first two years, which will subsequently be enhanced to Rs. 28,000/- 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.
Any upwardly revision in institute fellowship amount will be implemented upon receipt of orders from Department of Atomic Energy. Fellowship availed from external sources will be governed as per the rules of the respective funding agencies.

4. Candidates who are appearing in the final semester/year of qualifying examination in 2019 are also eligible to apply. However, they should have scored minimum 60% or equivalent grade till the end of the third semester / relevant year as the case may be. If selected, their admission will be subject to submission of final semester / year result mark sheet wherein they should have obtained the requisite percentage / grade as mentioned above at Sl. No. 1.

5. Candidates with GPA may need to produce the conversion note (in case it is not mentioned in their mark sheet) from their institution towards calculation of percentage.

Research Areas for some schools

School of Biological Sciences
- Regulation of cell adhesion and signaling in *Helicobacter pylori*-mediated gastric cancer progression.
- To understand the effects of diet, antibiotics, infection and/or dark-light cycle on commensal microbiota via gut-brain-gut axis.
- Study of membrane biogenesis: Mechanism and regulation of nuclear remodeling and role of dynamins and microtubules.
- Regulation of cell structure and functions by thermosensitive TRP ion channels.
- Molecular Genetics and Epigenetics of Ageing Disorders: Neurodegeneration and Cancer.
- Molecular Microbiology: Functional significance of membrane proteins and mechanisms underlying bacterial persistence.
- Cellular Immune Regulations associated to Cancer Immunity and Infection Immunity.
- Rational drug discovery, molecular and cellular target validation, Structural bioinformatics and computational biology.
- Interaction of light and auxin in shaping development in plants; Role of splice variant of constns, CO like and GIGANTEA in the regulation of Florigen.
- Molecular Genetics of Gallbladder cancer; putative angiogenic regulators and tumorigenesis.
- Neuroendocrine regulation, Neural circuitry of energy balance and reproduction.
- Translational Control in Drosophila development and Neurogenesis.
- Structure-and-function work on two component systems/transporters.
- Structure-function studies on terminase complex proteins of herpesviruses.
- Cellular Regulation of morphogenesis and degradation of complex cell shapes.
- Mitotic apparatus in Bacterial systems, bacterial cell division, antimicrobial-resistance and drug discovery.
- Evolutionary origins, biogeography and systematics of biota within the Indian subcontinent.
- Phylogeography and species diversification patterns.

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

School of Humanities and Social Sciences
Economics (energy economics, nuclear policy), English, Psychology (perception management), Sociology (science & technology policy, nuclear policy, health, information society and digital media).

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 fro 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.

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 online application forms for each school and submit separate forms 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.

Important dates:

- Online application will be activated on – 02.03.2019 (Saturday)
- Last date for filling up online application – 01.04.2019 (Monday)
List of short-listed candidates will be uploaded on NISER website latest by 15.04.2019 (Mon)

1. School of Biological Sciences
2. School of Chemical Sciences
3. School of Computer Sciences
4. School of Humanities & Social Sciences
5. School of Mathematical Sciences
6. School of Physical Sciences

Tentative dates for test/interview will be as follows:

1. School of Biological Sciences: 16.05.2019 - 17.05.2019
2. School of Chemical Sciences: 13.5.2019-14.5.2019
3. School of Computer Sciences: 24.05.2019
4. School of Humanities and Social Sciences: 14.5.2019 – 15.5.2019
5. School of Mathematical Sciences: 27.05.2019 - 29.05.2019
6. School of Physical Sciences: 27.05.2019 - 28.05.2019

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 on 23rd July, 2019 (Tuesday).

If you have any further query, kindly send an email to cpsbs@niser.ac.in, cpscs@niser.ac.in, cpscps@niser.ac.in, cpshss@niser.ac.in, cpsms@niser.ac.in, cpsps@niser.ac.in for Biological Sciences, Chemical Sciences, Computer Sciences, Humanities & Social Sciences, Mathematical Sciences and Physical Sciences respectively.

Applicants are encouraged to visit school web page for more information on research activities.

Address for communication and more details
Faculty-In Charge (Academic Affairs),
National Institute of Science Education and Research (NISER),
P.O.-Jatni, Dist-Khurda, Odisha-752050
Phone: 0674-2494013, Fax-0674-2494004
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.
- Candidates who have appeared CSIR-UGC-NET exam held in December 2018 and are awaiting the result are required to upload the CSIR-UGC-NET admit card at the time of submission of online application.

FIC/Dean, Academic Affairs