

# जवाहरलाल नेहरू उन्नत वैज्ञानिक अनुसंधान केंद्र (ज.ने.उ.वै.अ.के.)

(विज्ञान एवं प्रौद्योगिकी विभाग,भारत सरकार के अधीन एक स्वायत्त संस्था तथा सम विश्वविद्यालय संस्था)

## Jawaharlal Nehru Centre for Advanced Scientific Research

(An Autonomous Institution under Dept. of Science & Technology, Govt. of India and an Institution Deemed to be University)

जक्कूरु परिसर, बेंगलूरु - 560 064, भारत / Jakkur Post, Bengaluru - 560 064, INDIA

# **RESEARCH ADMISSIONS 2024**

#### **Guidelines for Candidates:**

Applications are invited from eligible applicants for admissions to the following degree programmes:

- (1) Research Programmes [(Ph.D. / MS(Engg.) / MS(Research)]
- (2) Master of Science (M.Sc.) in Chemistry with the option to specialize in Materials Chemistry/Chemical Biology /Energy (Two-year programme)
- (3) Master of Science (M.Sc.) in Inter-disciplinary Biosciences
- (4) Integrated Ph.D. (Int. Ph.D.) Programmes
- (5) Post Graduate Diploma in Materials Science (PGDMS)

The gist of the admission operations is given in the following paragraphs.

Applicants possessing the educational qualifications including those in the final semester/year of their qualifying examinations but expect to complete all the requirements for award of the degree (like examinations, project dissertations, viva-voce etc.,) by 31.07.2024 and can furnish necessary certificates on or before 31 October 2024 are eligible to apply.

# 1. RESEARCH PROGRAMMES [Ph.D. / M.S(Engg.) / M.S(Research)]

## 1.1 Eligibility

Candidates with an M Sc. or equivalent, B.E/B.Tech/B.S. (4 year) or equivalent or M.E/M.Tech or equivalent or B.VSc./M.VSc. or MBBS/MD as applicable to individual Units as given in the table below are eligible to apply.

- Candidates with an M.Sc. or equivalent, M.E/M.Tech or equivalent should have at least 55% marks in aggregate or its equivalent grade on a point scale wherever the grading system is followed.
- Candidates seeking admission after a 4-year/8-semester Bachelor's degree programme should have a minimum of 75% marks in aggregate or its equivalent grade on a point scale where the grading system is followed.

The candidates should also have qualified in any one of the national exams: GATE/JEST/GPAT/UGC-JRF/CSIR-NET-JRF/ICMR-JRF/DBT-JRF/INSPIRE-JRF. The award certificate of such tests should have the validity period for seeking admission to a research programme as on 1<sup>st</sup> August 2024.

Qualifying in the national exam is desirable for ME/M. Tech or equivalent degree holders.

Sl No.	Unit	Eligible Education qualifications	Qualifying in any one of the national entrance tests
1.	Chemistry and Physics of Materials Unit	<ol> <li>Master's Degree in Science or equivalent in Electronics, Chemical/Mathematical/Physical/ Materials Science.</li> <li>Bachelor's Degree in Engineering/Technology/4-year Bachelor of Science or equivalent in Electrical/Electronics/Metallurgy/ Polymer/Engineering Physics/Nano Technology/Chemical.</li> </ol>	Valid GATE /JEST score / CSIR-JRF/UGC-JRF/DBT- JRF/ICMR- JRF / INSPIRE
		Master's Degree in Engineering/Technology or equivalent in Electrical/Electronics/Metallurgy/Polymer/Engineering Physics/ Nano Technology/Chemical	Qualifying in one of the national exams mentioned above is desirable
2.	Engineering Mechanics Unit	Master's Degree in Science or equivalent in Mathematical/ Physical Sciences.      Bachelor's Degree in Engineering/Technology/4-year Bachelor of Science or equivalent in Aerospace/ Mechanical /Metallurgy/ Polymer/ Engineering Physics /Chemical.	Valid GATE /JEST score / CSIR-JRF/UGC-JRF/ INSPIRE
		3. Master's Degree in Engineering/Technology or equivalent in Aerospace/Mechanical/Metallurgy/Polymer/Engineering Physics/Chemical/Atmospheric Science.	Qualifying in one of the national exams mentioned above is desirable
3.	Evolutionary and Organismal Biology Unit	<ol> <li>Master's Degree in Science or equivalent in Life Sciences / any area of Biological Sciences / Mathematics /Physics.</li> <li>Bachelor's Degree in Engineering/Technology/4-year Bachelor of Science or equivalent in Biotechnology, Biological Engineering, or any Biology related area.</li> <li>MBBS /M.D.</li> <li>B.VSc. / M.VSc.</li> </ol>	Valid GATE /JEST score / CSIR-JRF/UGC-JRF/DBT- JRF/ICMR- JRF / ICAR AICE-JRF/INSPIRE
		Master's Degree in Engineering/Technology or equivalent in Biotechnology, Biological Engineering, or any Biology related area.	Qualifying in one of the national exams mentioned above is desirable
4.	Molecular Biology and Genetics Unit	<ol> <li>Master's Degree in Science or equivalent in Bioinformatics, Biotechnology, Chemical/ Biological/Life Sciences.</li> <li>Bachelor's Degree in Engineering/Technology/4-year Bachelor of Science or equivalent in Biotechnology, Bioinformatics, or any Biology related area.</li> <li>MBBS /M.D.</li> </ol>	Valid GATE /JEST/ score / CSIR-JRF/UGC- JRF/DBT- JRF/ICMR- JRF / INSPIRE
		Master's Degree in Engineering/Technology or equivalent in Biotechnology, Bioinformatics, or any Biology related area.	Qualifying in one of the national exams mentioned above is desirable
5.	New Chemistry Unit	<ol> <li>Master's Degree in Chemistry/Physics.</li> <li>Bachelor's Degree in Engineering/Technology/4-year Bachelor of Science (preferred with Chemistry as a major subject)</li> </ol>	Valid GATE score / CSIR- JRF/UGC-JRF/ DBT- JRF/ICMR-JRF/INSPIRE

6.	Neuroscience Unit	<ol> <li>Master's Degree in Science or equivalent in Neuroscience, Bioinformatics, Biotechnology, Biological/Life Sciences/ Pharmacy.</li> <li>4-year Bachelor of Science or equivalent in Biotechnology, Bioinformatics, or any Biology related area/Bachelor's Degree in Engineering or Technology (electrical or computer science branches)</li> <li>MBBS /M.D.</li> <li>Master's/4-year Bachelor's Degree in non-Biology area with demonstrated interest in Neuroscience can also apply</li> </ol>	Valid GATE /JEST/GPAT score / CSIR-JRF/UGC- JRF/DBT- JRF/ICMR- JRF / INSPIRE
		Master's Degree in Engineering/Technology or equivalent in Biotechnology, Bioinformatics, or any Biology related area.	Qualifying in one of the national exams mentioned above is desirable
7.	Theoretical Sciences Unit	Master's Degree in Science or equivalent in Electronics, Chemical/Mathematical/Physical/Materials Sciences.      Bachelor's Degree in Engineering/Technology/4-year Bachelor of Science or equivalent in Aerospace/ Engineering Physics/ Electrical/ Electronics /Metallurgy /Chemical/Mechanical Sciences.	Valid GATE /JEST score / CSIR-JRF/UGC-JRF/DBT- JRF/ICMR- JRF / INSPIRE
		3. Master's Degree in Engineering/Technology or equivalent in Aerospace/EngineeringPhysics/Electrical/Electronics/Metallurgy/Chemical/Mechanical Sciences.	Qualifying in one of the national exams mentioned above is desirable

# 1.2 Selection procedure

Candidates are short-listed for an interview based on their performance in the national exam(s) and academic performance. The selection is based on the performance in the interview (in some Units, an aptitude test/preliminary interview may precede the final interview).

Note: Interviews will be held in-person only.

# 2. MASTER OF SCIENCE (M.Sc.)

# 2.1 Eligibility

Programme	Qualifying degree and exams
Chemistry	Applicants possessing a minimum of 55% marks at the Bachelor's degree in any branch of Science with Chemistry as one of the major subject.
Inter-disciplinary Biosciences (with an option to specialize in Epigenetics and Diseases, Neurosciences, Human Disease Genetics, or Chemical Biology approach to understanding Disease Biology and Drug Discovery)	Applicants possessing a minimum of 55% marks at the Bachelor's degree in any branch of Biological Science with Chemistry as a significant subject and who have qualified for the Joint Admissions Test for Masters (JAM) 2024 and/or equivalent examination are eligible to apply.

# 2.2 Selection procedure:

Shortlisting for interviews for Master of Science (M.Sc.) in Chemistry will be done based on the performance in Joint Admission test for Master's (JAM) 2024 or a written examination conducted by JNCASR.

For M.Sc. Inter-disciplinary Biosciences, shortlisted JAM candidates will be called for an interview directly. The final selection is based on the performance in the interview.

*Note: Interviews will be held in-person only.* 

#### 3. INTEGRATED Ph. D. PROGRAMME

#### 3.1 Eligibility

Disciplines	Qualifying degree and exams
Physical Science (Specialization in Materials)	• Students with minimum of 55% marks at bachelor's degree in any
	branch of Science/Engineering with an aptitude for advanced
Web link for related information is available at	physics education and materials research.
https://www.jncasr.ac.in/sites/default/files/users/	Candidacy will be evaluated on past academic records and/or scores
user277/Int.%20PhD_Physical%20Sciences.pdf	in national level exams
	• Students with minimum of 55% marks at bachelor's degree in any
Chemical Science	branch of Science with Chemistry as one of the major and
Chemical Science	mathematics as a subject at least up to PUC (10+2 level) are eligible
	to apply.
	• Students with minimum of 55% marks in bachelor's or equivalent
	degree in Physical, Chemical or Biological Science (including
Biological Science	Biotechnology, Pharmaceutical, Veterinary Sciences and
	Agricultural Sciences) or B.E/B. Tech degree or equivalent degree.
	Candidates who have qualified the JAM 2024 test are encouraged
	to apply.

## 3.2 Selection procedure

Shortlisting for interviews for selection to the Int. Ph.D. Physical Science Programme will be based on academic records, performance in the national level exams, statement of purpose mentioned in the application form.

Shortlisting for interviews for Int. Ph.D. Chemical Science Programme will be done based on the performance in Joint Admission test for Master's (JAM) 2024 or a written examination conducted by JNCASR.

The applications for the Int. Ph.D. Biological Science Programme will be screened based on overall academic performance for eligibility to attend an entrance exam. Successful candidates will be invited to appear for interviews shortly afterwards.

The final selection to the Int. Ph.D. Degree Programme will be based on the performance in the interview.

Note: Interviews will be held in-person only.

# 4. POST GRADUATE DIPLOMA IN MATERIALS SCIENCE (PGDMS)

Postgraduate Diploma in Materials Science (PGDMS) is a full-time two semester (one-year) programme offered by the International Centre for Materials Science (ICMS), JNCASR. The training will be imparted through projects and formal courses. A stipend will be paid as per norms.

#### 4.1 Eligibility

Candidates who have completed their M.Sc. in any branch of Science are eligible to apply.

## **4.2 Selection procedure**

The applications received by the deadline will be scrutinized by the Committee and eligible/meritorious candidates will be shortlisted for offline interviews. Only a limited number of candidates will be selected based on the recommendation of a selection committee.

Note: Interviews will be held in-person only.

#### HOW TO APPLY

Applications for all the degree programmes mentioned above are available online. Only online applications will be considered.

#### **APPLICATION FEE**

The application fee is Rs.500/- and is non-refundable. The payment is to be made to the JNCASR bank account through NEFT. Service charges if any, must be borne by the applicant. Please visit the online admissions portal for beneficiary bank details.

# **IMPORTANT DATES**

Website opens for on-line submission of applications	11.03.2024
Last date for submission of applications online (website closes at 23:59 hours on 15.04.2024)	15.04.2024

**Fellowships:** All the regular students [except Master of Science (M.Sc.) in Chemistry and Master of Science (M.Sc.) in Inter-disciplinary Biosciences] joining JNCASR are eligible for a fellowship from JNCASR/ CSIR / UGC/ ICMR / DBT /INSPIRE depending upon their mode of entry.

The applicants are advised to visit the website <a href="http://www.jncasr.ac.in/admission/degree-programmes">http://www.jncasr.ac.in/admission/degree-programmes</a> for details regarding degree programs and the areas of research carried out in the Research Units.

Admission portal for online submission of applications can be accessed at the following link <a href="https://www.jncasr.ac.in/admission/admissions">https://www.jncasr.ac.in/admission/admissions</a>

A relaxation of 5% marks or its equivalent grade for those belonging to <u>SC/ST/OBC</u> (non-creamy layer)/PWD and Economically Weaker Section (EWS) categories.

Women candidates are strongly encouraged to apply.

Academic Coordinator