No. F.11-3/4/2003 (Acad)/ 692-A                    Dated   13.10.23

## ADMISSION NOTICE
## Ph.D. Programmes - (Spring Semester,2024)

Online applications are invited from eligible candidates for admission to the following Ph.D. programmes in the Spring Semester, 2024:

**Ph.D Offering Departments / Centres**:

**Departments/ Centres under School of Sciences:** Chemical Sciences, Environmental Science, Mathematical Sciences, Molecular Biology & Biotechnology and Physics.

**Departments under School of Engineering**: Computer Science & Engineering, Design, Electronics & Communication Engineering, Electrical Engineering, Energy, Food Engineering & Technology and Mechanical Engineering.

**Departments under School of Management Sciences:** Business Administration.

**Departments/ Centres under School of Humanities and Social Sciences:** Assamese, Cultural Studies, English, Hindi, Linguistics & Language Technology, Mass Communication & Journalism and Sociology.

**and,**
Centre for Multidisciplinary Research.

Candidates to the PhD programmes will be selected for admission on the basis of Written Examination and Personal Interview to be conducted by the respective departments/centres. However, the candidates who had qualified the Written Examination for admission to PhD programmes in the Autumn Semester, 2023 for the above departments but not admitted and candidates with UGC NET-JRF/ UGC-CSIR NET-JRF, UGC/CSIR NET (LS)/ SLET (LS), GATE, CEED or similar examinations as specified by the University will be exempted from appearing in the Written Examination, but they will be required to appear in the Personal Interview.

**Pre-Requisites and area of research of the Ph.D. programmes and Fee Structure are given below.**

**Reservation and relaxation:** As per Govt. of India Rules.

**How to apply**: Candidates are required to apply online through the link http://www.tezuadmissions.in by paying application fee of Rs.800/- only (Rs.400/- for SC, ST and PWD category). Payment of application fee is to be made online through Debit card / Credit card or NET-banking. Candidates should read and follow the instructions available on the admission portal carefully while filing up the online application form.

For written entrance  examination syllabus and pattern, please visit the online admission portal.

**Important tentative dates**:

- Date of display of online application form on the website:  16th October, 2023.
- Last date of submission of online applications: 20th November, 2023.
- Date of publication of list of applicants eligible for personal interview and Written Test: 25th November, 2023.
- Date of written test to be conducted by the concerned department:   30th November, 2023.
- Date of personal interview by the concerned department:   1st – 2nd December, 2023.
- Date of publication of list of selected candidates:  15th  December, 2023.
- Date of provisional admission:  17th January, 2024.


Sd/-
Prof. S.C. Deka
Controller of Examinations
Tezpur University

# Pre-Requisite & area of research for admission into various Ph. D. programmes (Spring Semester - 2024)

A. UGC eligibility criteria may be referred to.

B. **Pre-requisites and area of research**:

| S. No | Department/Centre | Pre-requisite | Area of Research |
|---|---|---|---|
| 1 | Assamese | Post Graduate in Assamese or in any allied discipline/subjects with 55% marks or equivalent grade. | Modern Assamese Literature, Film Studies, Theatre Studies, Regional Literatures (Fiction & Poetry), Translation, Comparative Literatures. |
| 2 | Business Administration | M.B.A. , M.Com. , M.A. / M.Sc. in Economics, M.A. in Psychology/ Sociology/Social Work/ Cultural Studies, MCA , M.T.M. / M.T.A. FCA/ FCS/ FICWA. | Tourism Marketing, relationship Marketing Services Marketing, research Methodology, Accounting, Taxation, Social Development Issue, HRM, Chance Management, Rural Development Management, NGO's Organizational Development, Human resource Development, Marketing, Adversity , Tourism, Optimization, Project Management, Quality Management, Operations, Agribusiness Management, Farmer Producer Company, FPO, Stock Market, Rural Development, Marketing, HRM, Rural Development, General Management, Tourism Management, HRM, Organizational Behaviour. Stem Management, Knowledge Management, Application of Data Mining in Management. |
| 3 | Chemical Sciences | M.Sc. in all branches of Chemical Science/ Physics/Nanoscience/ Material Science/ Biotechnology/ Biochemistry/ Bioinformatics/ Environmental Science. M.E./M.Tech. in allied subjects (Chemical Engineering/ Polymer Technology/ Material Sciences/ Environmental Engineering etc.). | Chemical Sensors & Biosensors, Ionic Liquid Materials and its Applications Computational Inorganic Chemistry,  Organic Chemistry and Crystal Engineering. |
| 4 | Computer Science & Engineering | M.Tech. in Computer Science/ I.T./ Electronics MCA M.Sc. in Computer Science/ I.T. or B.E. / B.Tech with 75% marks in aggregate or  equivalent CGPA with a valid GATE Score. Minimum two recommendation Letters from the Institute/ University from where B.E./B.Tech degree was obtained. | Malware defence, Pattern Recognition , Machine Learning, Computer Vision, Machine Learning, Data Mining, Algorithm, Speech Processing. |
| 5 | Cultural Studies | M.A. in any of the disciplines in Humanities or Social Sciences with a uniformly good academic career. Candidates with UGC JRF, UGC NET or NE SET will be given preference. | Design Ethnography, Food Cultures, Media and Culture, Digital Archiving/Digital Ethnography, Visual Culture, Visual Arts, Gender Studies, Literary Culture, Masculinity Studies, Environmental Politics |

| | | | |
|---|---|---|---|
| 6 | Design | "Master's Degree in Design/M.E./M.Tech/M.Arch/MCA/ MSc (Computer Sciences/Electronics) Master's degree in Applied Arts/ Ergonomics/ Fine Arts/ Visual Arts/ Psychology/ Physiology/ Occupational Safety and Health/ Journalism/ Mass Media Communication, or two-year Master's degree in Management (MBA or equivalent) with relevant studies in Design field with minimum 55% marks (Relaxation of percentage marks for the reserved categories is as per Govt. of India rules. OR Bachelor's Degree in Design /Engineering/Architecture/Planning /Interior Design (10+2+4) years / 4 Years BFA/ Recognized degree in Design related field (10+2+4) years (AICTE/UGC approved) with 75% marks in aggregate or equivalent CGPA with valid CEED/GATE Scores. OR Four-year Undergraduate Diploma in Design (NID or equivalent), with postgraduate qualification in relevant area with at least 6.0 CPI (or 55% marks)/ A two-year Post-Graduate Diploma in Design in relevant areas (NID/CEPT or equivalent) with first class at Bachelor's level/ GD Art (5-year program after 10th standard) with one-year professional experience, with at least 7.5 CPI (or 75% marks). Valid CEED/GATE Scores will be preferred" | Product Design, Solar Passive Architecture / Materials |
| 7 | Electronics & Communication Engineering | M.E. / M.Tech. / M.Sc. Engg. / M.S. in Electronics/ Communication/ Electronics Design/ Electrical/ Instrumentation/ Control/ Microwave/ Biomedical/ Bioelectronics/ Bio –Technology/ Computer Science/ Information Technology. or M.Sc. in Electronics/ Physics/ Applied Mathematics. MCA with Physics, Chemistry and Mathematics in Bachelor degree, MBBS with MD/ MS degree. or B.E. / B.Tech with 75% marks in aggregate or equivalent CGPA with a valid GATE Score. Minimum two recommendation Letters from the Institute/ University from where B.E./ B.Tech degree was obtained. | Semiconductor Devices, Bio-sensors, Flexible Electronics, Sessor Intelligence, Robotics, Image Processing, Biomedical signal Processing, Deep Learning for Image/signal Analysis, precision Agriculture, Microwave Biosensor for Health Care, Advanced MOS Devises, Semiconductors, Manristors, Bioelectronics, Machine learning, Computer Vision, Pattern recognition, Rehabilitation Robotics Biomedical Signal Processing, Biosensor , Micro Sensor, Solar Cell, Photodetector, Quantum Image Processing, Vehicular Electronics, Sensor and Nanotechnology. |

| | | | |
|---|---|---|---|
| 8 | Electrical Engineering | ME/M.Tech. in any relevant discipline of Engineering or MBBS with MD/MS or M.Sc. in any relevant Science discipline,<br>or<br>B.E./B.Tech. with 75% marks aggregate orc equivalent CGPA with a valid GATE Score and minimum two recommendation letters from the Institute or University from where B.E. /B.Tech. degree was obtained. | Micro grid Control, Renewable Energy, Power & Energy, Power Electronics, Electrical Drives, Micro grid, HEVIEV, Sensor & Sensing Technology, Signal Condition Circuit, IOT & Food Application, Renewable Energy, Power System, Electric Drives, Electric Vehicles. |
| 9 | Energy | M.Sc. / M.E. / M.Tech. degree in Energy Technology/ Energy Management/Energy related Engineering and Technology/ Physics/ Chemistry/Agriculture Allied subjects. | Emerging Technologies, Concepts for High Performance Bio-energy Systems, Bio-diesel, Bio-fuels, Biomass Gasification, Coal/ biomass Combustion, Solar Thermal System, Radiant System, Ground Source Heat Pump System. |
| 10 | English | MA in English (specialization may be in American Literature as well as in English Language Teaching, English Literature, Indian Writing in English, New literature in English and Women's Writing in English). | Contemporary South Asian English Literature, English Literature from North East India, Partition Literature |
| 11 | Environmental Science | Masters in any Science/ Applied Science / Engineering discipline with at least 55% marks or equivalent CGPA. At Bachelor's level the candidate must have attended Science / Technology programme. | Air Pollution, Atmospheric Chemistry, Hydro-geomorphology, RS-GIS applications Plant Abiotic Stress and its Management GHG emission from Agriculture, Soil Health vermitechnology, plant nutrition, waste recycling, nano-enabled agriculture. |
| 12 | Hindi | MA in Hindi | Dalit discourse, Tribal Discourse, Hindi Cinema Linguistic, Journalism, Medieval and Modern Hindi Poetry |
| 13 | Food Engineering & Technology | M.Tech. / M.E. /Integrated M. Tech in Food Engineering and Technology/Food and Dairy related other programme/Mechanical Engineering/Chemical Engineering/Bio-Process/Bio-Chemical/Biotechnology, or, M.Sc. and Integrated M.Sc. in Food Engineering and Technology/Food and Dairy related other programme/Applied Microbiology/Microbiology/Bio-Chemistry/Chemistry/ Biotechnology/Bioscience and Informatics, or,B.E./B.Tech (in Food Engineering and Technology/Food and Dairy related other programme) with 75% marks in aggregate or equivalent CGPA with valid GATE Score). Minimum two recommendation Letters from the Institute/University from where B.E./B.Tech degree was obtained. | Food Materials Engineering, Food Industrial Engineering, Food Design,<br>Nano Composite, Fruits, and Vegetable Technology, Function Food, Biosensors/<br>Food Packaging, Food Safety and Laws, Food Processing Waste Utilization/<br>Food Process Modeling, Food Rheology, Functional Food and Biopolymer, Food Extrusion /<br>Food Process Technology, Non-Thermal Processing, Product Development/<br>Food Processing, Nanotechnology in Edible Food Packaging, Bionanostructured Materials, Functionalized Coating/<br>Food Process Engineering, Grain Storage and Structures, Fruits and Vegetable Processing and Machineries /<br>Food Bioprocessing, Rice Chemistry and Technology, Value Addition of Local Crops. |
| 14 | Linguistics and Language Technology | M.A. in Linguistics and Language Technology/Ma in Linguistics/MA in Allied Subjects. | Morphology, Language Typology, Phonetics, Phonology, Historical Linguistics, Dialectology, Ethnolinguistics, Acoustics,<br>Experimental Phonology, Computational Linguistics |

| 15 | Mass Communication & Journalism | M. A. in Mass Communication, Mass Communication & Journalism/ Communication. Master of Mass Communication (MMC). Master of Journalism & Mass Communication (MJMC). Master of Science in Communication (M. S. Communication). M. Sc. Communication. Master of Journalism. | Journalism |
|----|----|----|----|
| 16 | Mathematical Sciences | M.A. / M.Sc. in Mathematics or M.A./M.Sc. in Statistics with requisite background in Mathematics. | Topology and Fuzzy Mathematics, Graphs and Matrices, Applications of Linear Algebra, Non-parametric Statistics, Ring Theory and Finite Field Theory, Algebra and Graph Theory, Numerical Linear Algebra. |
| 17 | Mechanical Engineering | M.E. / M.Tech. / M.Sc. (Engg.) in Mechanical Engineering or any other relevant Engineering branches including Chemical Engineering and Materials Science Engineering. Or, M.Sc Degree in any relevant discipline with CSIR-UGC JRF/NET Qualified certificate or a valid GATE score. Candidates other than those with M.Sc. Mathematics must have studied Mathematics up to BSc level. Or, B.E. / B.Tech degree with 75% marks in aggregate or equivalent CGPA with valid GATE Score. Minimum two recommendation Letters from the Institute /University from where B.E./B.Tech degree was obtained. | • Thermodynamic modelling, analysis and optimization of Combined power, organic Rankine and Kalina cycles<br>• Solar hybrid power and cooling systems<br>• Vapor absorption cooling systems<br>• Design and optimization of mechanical systems<br>• Computational Fluid Dynamics<br>• Compressible Flows<br>• Solar Thermal Energy<br>• Photovoltaic-Thermal Technology<br>• Laser micro manufacturing<br>• Computer-Aided Manufacturing<br>• Material Science<br>• Micro-alloying<br>• Thermal energy storage<br>• Rural energy technology<br>• Bio-energy applications<br>• Manufacturing and materials science– Composite Materials<br>• Mechatronics<br>• Optimization<br>• Finite Element Methods Machine Design<br>• Autofrettage technology |
| 18 | Molecular Biology & Biotechnology | Masters in any branches of Life Sciences/ Physical Sciences/ Chemical Sciences/ Mathematical Sciences/ Agricultural Sciences / Veterinary or Sciences / Engineering Sciences /Medical Sciences or in any allied field. B. Tech./ B. E. degree with 80% marks in CGPA (with GATE score > 90.00 percentile) in Chemical Engineering/ Chemical Sciences/ Bioinformatics or any allied field. MBBS or BVSc. Degree with at least 60% marks or equivalent CGPA. Apart from the above, candidates having consistently good academic record will be preferred. | Whole Genom Seq (WGS) analysis and Systems Biology/Bioinformatics and Computational Biology/Molecular Diagnostics (Mycology) Microbiology (Diagnostics)/NGS analysis/Plant Molecular Biology, Bioinformatics Cancer Biology OMICS, Systems Biology/Insulin resistance & Type 2 Diabetes/Snake venom/Molecular Biology and Cancer Biology. |

| 19 | Multi-Disciplinary Research | Master's degree in any discipline with minimum 55% or equivalent grade from a recognized University in India or equivalent degree from abroad with a good academic career. Candidates with GATE, UGC/CSIR – JRF, UGC/CSIR-NET or NE-SET will be given preference. B.Tech/BE with minimum 75% or equivalent grade will also be considered eligible for PhD admission. For candidates having more than 10 years of industrial experience, minimum marks may be relaxed. | Robotics (Prospect, issues, and impact of new technologies in the contexts of society, environment, and economy)/ Mental Health and well-being (Innovative digital technology driven investigation and intervention)/ Big data including its applications in Biology and medicine, Systems Biology, Climate adaptation (Prospect, issues, and impact of new technologies in the contexts of society, environment, and economy)/ Data science for solving engineering problems (Prospect, issues, and impact of new technologies in the contexts of society, environment, and economy). |
|---|---|---|---|
| 20 | Physics | M.Sc. in Physics/ Electronics/ Geophysics/ Material Science/ Applied Mathematics/ Nanoscience and Technology/ Biotechnology/ Environmental Science and Chemical Science. M.Phil., M.Tech. in Solid State Material/ Material Science/ Electronics/Energy/ Nanoscience and Technology/ Biotechnology/ Environmental Science and Chemical Sciences. B.Tech. in Engineering Physics with 80% marks in aggregate or equivalent CGPA. | High Energy Physics/Microwave Materials & Devices/ Plasma Physics/ Optoelectronics, Laser Physics/ Condensed matter physics/LND/ Surface and interface, First principle calculation/ Astronomy & Astrophysics Neutrino Physics/ Applied Optics & Instrumentation. |
| 21 | Sociology | Post-Graduation in Sociology / Cultural Studies/ Anthropology (with specialization in Social Anthropology) / Economics / History / Political Science / Philosophy / Mass Communication / English / Law / Management/ Social Work. | Development, Migration, Urbanization, Social Movement, Agrarian Structure, Tribal Studies, Rural Livelihood, Gender , Sociology of Religion, Ritual Studies, Kinship Studies, Sociology of Science. |

Sd/-Controller of Examinations

**FEE STRUCTURE FOR Ph.D. STUDENTS TO BE ADMITTED IN SPRING SEMESTER, 2024**

| Particular of Fee | Full Time (Hosteller) | Full Time (Non-hosteller) | Part Time | TU Employee |
|---|---|---|---|---|
| **A. Once at the time of admission** | | | | |
| Admission | 500 | 500 | 500 | 500 |
| Registration | 150 | 150 | 150 | 150 |
| Identity card | 50 | 50 | 50 | 50 |
| Convocation | 1000 | 1000 | 1000 | 1000 |
| Provisional certificate | 100 | 100 | 100 | 100 |
| Alumni Association | 500 | 500 | 500 | 500 |
| **B. Per semester** | | | | |
| * Hostel admission/re-admission | 3000 | | | |
| Tuition | 1500 | 1500 | 2000 | 2000 |
| Library | 400 | 400 | 400 | |
| Students' activity | 500 | 500 | 500 | 500 |
| Medical | 300 | 300 | 300 | |
| Transport | 1000 | 1000 | 1000 | |
| Laboratory (including computer usage) | 1050 | 1050 | 1050 | 1050 |
| Research Fee | 3000 | 3000 | 4000 | 4000 |
| Infrastructure and amenity | 1100 | 1100 | 1100 | 1100 |
| Fan, Electricity and Water charge | 400 | 400 | 400 | 400 |
| Students' Welfare Fund | 150 | 150 | 150 | 150 |
| Departmental Development Fund | 2500 | 2500 | 2500 | 2500 |
| **Consumable Charge | 2000 | 2000 | 2000 | 2000 |
| Menial Charge | 1500 | | | |
| *** Health Insurance | 143 | 143 | | |
| **C. Refundable Caution Deposit (Once at the time of admission)** | | | | |
| Caution deposit (Library and Laboratory) | 2000 | 2000 | 2000 | 2000 |
| Hostel Caution deposit | 3000 | | | |
| **Total fee to be paid by the students of the Dept. of Chemical Sc./MBBT//FET/ Environmental Sc. at the time of admission** | 25843 | 18343 | 19700 | 18000 |
| **Total fee to be paid by the students of other departments at the time of admission.** | 23843 | 16343 | 17700 | 16000 |

*    SC/ ST candidates are exempted from the paying the hostel seat rent of Rs. 675/-.
**   Consumable Charge is to be paid by the Ph.D. students admitted in the Dept. of Chemical Science/MBBT//FET/ Environmental Science.
***  Students above 30 years of age are not covered in this scheme.


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