



PRESIDENCY UNIVERSITY
Kolkata
Admission Notification for Ph.D. Programme
Session 2022-2023 (February cycle)

Ref.No.: PU/FC/517/PhD/notice/2022

Date: 23/12/2022

Online Applications are invited from UGC or UGC – CSIR NET / NET – LS or DBT-BET (only for Institute of Health Sciences) or ICMR-NET (only for Institute of Health Sciences) qualified candidates for admission to the Ph.D. Programme of Presidency University in various departments/school/institute for the session 2022-2023 commencing from February 2023. Only completed online applications will be considered. Applicants are required to pay application fee after submission of online form within stipulated date. No application will be considered without payment of Application Fee.

A. Essential qualification:

- a) Candidates for admission to the Ph.D. program shall have a Master's degree with at least 55% of marks in aggregate or its equivalent grade.
- b) A relaxation of 5% of marks or an equivalent relaxation of grade may be allowed for those belonging to SC/ST/OBC-A/OBC-B/ Person with Disability (PwD) as per UGC guidelines.
- c) UGC or UGC-CSIR NET/NET-LS qualified. ICMR-NET, DBT-BET qualified candidates are also eligible to apply for Institute of Health Sciences (IHS) only.

B. Application Procedure and Important Dates:

Application form will be available in <http://presiuniv.ac.in/>. Interested candidates are required to fill up the online application form. Application number will be generated after completion of online application. Use the system generated application number to pay the non-refundable application fee of Rs-500/- (and applicable bank charges) in SBI Collect Portal.

Send/ drop the Application form along with mark-sheets/grade-cards, certificates and synopsis and copy of the Payment Receipt to the following address:

To
The Secretary, Faculty Councils,
Presidency University,
86/1, College Street,
Kolkata-700073

No application will be considered without payment of non-refundable application fee.

Important Dates

Start date for applying online	:23 rd December, 2022
Start date for online payment	:23 rd December, 2022
Last date for applying online	:9 th January, 2023 (till 4pm)
Last date for online payment	:9 th January, 2023 (till 5pm)
Last Date for receiving Hardcopy of the application	:16th January, 2023
Interview/test schedule	:Will be communicated through email/ notice

C. Provisional Seat Matrix:

Department wise and category wise availability of seats are given below. Reservation of seats for Person with Disability (PwD) will be as per Department of Higher Education (University branch), Government of West Bengal order no 1084(20)-Edn(U)/EH/1U-89/13 dated 7th December, 2018. PwD seats are included in the total number of seats in respective department/School.

Sl. NO.	Department/ School Name	Category wise available seats					
		UR	SC	ST	OBC-A	OBC-B	Total
1	Bengali	2	1	0	0	0	3
2	History	4	1	1	1	1	8
3	Sociology	4	1	1	1	1	8
4	Chemistry	14	7	2	3	2	24
5	Geology	6	10	4	5	0	25
6	Physics	9	5	2	2	1	19
7	Life Sciences	15	6	2	2	3	28
8	Geography	3	2	0	0	1	6
9	Economics	8	5	1	2	1	17
10	Mathematics	12	6	1	3	2	24
11	Statistics	4	1	0	1	1	7
12	Institute of Health Sciences (Newtown Campus)	12	2	1	2	1	18
13	Astrophysics	2	2	1	1	1	7

Available Research Areas**

Bengali:

Modern Bengali Poetry (1)

Fiction (Novel, Short Story) and Gender Studies (1)

Medieval Bengali Literature/ Literary Theories (1)

History: Open/ Any

Sociology: Open/ Any

Geology: Open/ Any

Chemistry: Open/ Any

Astrophysics:

Cosmic Microwave Background, Large Scale Structure, Galaxy Evolution, Numerical Simulations, Active Galaxies, Multiwavelength Astronomy, High Energy Astrophysics

Economics:

Development Economics, Health Economics, Gender Economics, Resources and environmental Economics, Corporate Finance, International Finance, Labour Economics, Social Network Analysis.

Geography:

- a) Hydrology (1-UR)
- b) River Science / Fluvial Geomorphology (1-UR)
- c) Tectonic Geomorphology and River scape Dynamics (1-SC)
- d) Urban water management, environmental sustainability wetland management and other environmental issues (1-SC)
- e) Urban water management, environmental sustainability wetland management and other environmental issues (1-UR)
- f) Agricultural Geography(1- OBC-B)

Physics:

- a) Atmosphere & Climate Change.
- b) Planetary Remote Sensing.
- c) Realization of Anderson localization in matter waves.
- d) Out of equilibrium dynamics, thermalization and statistical relaxation.
- e) Two dimensional transition metal oxides (TMOs) and di-chalcogenides (TMDs) based hybrid materials with carbonaceous nanomaterial and conducting polymers for different energy storage applications. Such as Transparent Flexible Supercapacitor, anode for sodium ion battery (SIB), electrochemical biosensors.
- f) Photo catalyst for degradation of toxic industrial effluent.
- g) Non-equilibrium quantum many body systems.
- h) Ion solid interaction.
- i) Early Universe Cosmology and Gravitational Waves.
- j) Nuclear Structure [Theory + Experiment]
- k) Quantum Phase Transition & Critical Point Symmetry [Theory + Experiment]
- l) Quantum Optics

Statistics:

- a) Nonparametric Inference,
- b) Statistical inference on manifold data,
- c) Test of hypothesis under curved exponential family,
- d) Robust Bayesian Inference,
- e) Sequential Design,
- f) Survival Analysis.

Institute of Health Sciences

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- a) Clinical immunology & Host-pathogen interaction (5)
- b) Tumor Virology and Cancer Genomics(1)
- c) RNA biology(1)
- d) Microbial ecology(1)
- e) Plant-microbe interaction(2)
- f) Plant physiology(1)
- g) Biomedical Materials and Tissue Engineering (1)
- h) Molecular parasitology(1)
- i) Molecular Endocrinology(1)
- j) Cancer biology(3)
- k) Neuroimmunology of RNA virus infection(1)

Mathematics:

Research Areas: Geometric Group Theory, Graph Theory, Operations Research, Cryptography, Cosmology, General Relativity, Lie Groups and Representation Theory, Qualitative Theory of ODEs, Fractal Geometry, Dynamical Systems

Life Sciences:

- a) Cancer Immunology and cancer cell signalling (2)

- b) Cancer Proteogenomics (3)
- c) Epigenetics in plants under stress conditions, Host-pathogen interactions (2)
- d) Molecular Plant - Pathogen Interactions, Bioinformatics (3)
- e) Reproductive Endocrinology and Toxicology, stem cell biology (2)
- f) Genetics of non-communicable disease (1)
- g) Neurobiology (3)
- h) Plant genetic engineering (1)
- i) Microbiology and Nutrition (4)
- j) Plant Biotechnology for crop improvement (2)
- k) Aquatic ecology and environmental biology (1)
- l) Plant molecular biology, Plant based bioenergy (1)
- m) Molecular endocrinology/reproductive toxicity in Fish model (1)
- n) Molecular Microbiology (1)
- o) Signalling photoreceptors and optogenetics: Perspective from Biochemistry and Biophysics (1)

**Number in brackets indicate vacancy in each specialisation (if any)

D. Selection Procedure:

All applicants are required to upload a research proposal within 500 words. Applicants may be shortlisted by the department/school/institute based on the research proposals/area of availability of guide in the proposed research areas and other academic criteria.

All eligible candidates will have to appear at an interview / test (online/offline mode), conducted by the Departmental Ph.D. Selection Committees of the University. In interview, the candidates will be expected to discuss their research interests.

Following the admission procedure, a list of qualified candidates (preferably mentioning their areas of research interest(s)) will be published and displayed by the University through the official website. Candidates selected for the Ph.D. Programme will be attached to the respective Department at the time of their provisional admission and will be required to enrol on payment of a non-refundable fee, determined by the University.

Sd/-

Secretary, Faculty Councils, Presidency University