Ph.D. January 2025

1. Admission Requirement and Discipline wise Eligibility Criteria:

Discipline	Eligibility
Medicine	MBBS/BDS with minimum 55% aggregate marks or MD/MS/MDS/DM/M.Ch. in the subject concerned or Diplomat of National Board of Examination. Candidates who have obtained any of these degrees from medical colleges which are not recognized by the Medical Council of India shall not be eligible to apply.
Engineering	M.E./M.Tech./M.S. (by Research) Degree/5 Year Dual Degree in Engineering / Technology in appropriate branch with minimum 55% aggregate or equivalent. M.Sc. Degree in Science in appropriate branch with a minimum 55% aggregate marks or equivalent.
	Direct Ph.D.: Bachelor Degree in Engineering/Technology in appropriate branch with minimum 65% aggregate marks or 7.5/10 CGPA. Candidates must have a valid GATE/ CSIR/ UGC NET/ICAR/DST-INSPIRE Fellowship qualification in the relevant area will also be eligible to register for full-time direct PhD Program.
Pharmacy	M.Sc./ M.Tech/ M.S.Pharm/ M.Pharm. Degree in the relevant Pharmacy field with a minimum 55% aggregate marks or equivalent.
Physiotherapy	Master's degree in Physiotherapy or relevant field with a minimum 55% aggregate marks or equivalent.
Agricultural Sciences	M.Sc./Master's degree in Agricultural Sciences, Veterinary Sciences or relevant branches with minimum 60% aggregate marks or equivalent.
Basic Sciences	M.Sc./ M.S. (by Research) Degree in Sciences in appropriate branch with minimum 55% aggregate marks or equivalent.
Humanities	M.A. or equivalent degree in Humanities subjects, with 55% aggregate marks or equivalent.
Management	MBA/Two-year PG Diploma (obtained after a bachelor's degree) with 55% aggregate marks or equivalent.

2. Ph.D. Specializations across all Schools

S. No.	Discipline	Broad area	Specializations
1.	Medicine	Anatomy	Anatomy, Genetics, Molecular Biology
		Physiology	Reproduction-Infertility
2.	Engineering	Biomedical Engineering	Biomedical Image and Signal Processing, Artificial Intelligence and Machine Learning in Healthcare, Optimization Techniques In Health Care, Biomedical Instrumentation, Biomaterials And Biomechanics
		Biotechnology	Cancer Biology, Phytomedicine, Molecular Docking, Aquatic Nanotoxicology, Xenobiotic Toxicological, Neurodegenerative Studies, Gerontology Studies, Plant Genetic Engineering, Plant Genome Editing, Plant Secondary Metabolism, Plant Functional Genomics
		Computer Science Engineering	Data Mining, Big Data Analytics, Data Science, Machine Learning, Artificial Intelligence, Machine Learning, Computer Vision, Deep Learning, Communication And Networks, Cryptography And Network Security, Block chain Technology, Internet of Things (IoT), Natural Language processing, Computational Neuroscience, Cyber security, Computer Systems & Network
		Electronics & Communication Engineering	Embedded Systems, VLSI Verification And Testing, AI In Electronics, Wireless Communication, Image Processing, Bio Signal Processing, Mobile Adhoc Networks, Image And Video Processing, Wireless Communication, Biomedical Healthcare, VLSI Design, Power Converters, Renewable Energy & Optimization Techniques
		Electrical & Electronics Engineering	Power Electronics & Drives, Fuzzy based Special Electrical Machines
		Mechanical Engineering	Manufacturing, Design, Metallurgy, Renewable Energy Sources, Additive Manufacturing, Industrial Engineering, Thermal Engineering, Welding, Alternate Fuel
		Materials Science & Engineering/Nanoscience & Technology	2D Nanomaterials (Graphene & MXene), Nanocomposites, Thermal Spray Coatings (for EMI Shielding, Solid Oxide Fuel Cell, Thermal Barrier Coatings, Superhydrophobicity/ Superhydrophilicity and Tribology)
3.	Sciences & Humanities	Physics	Crystal Growth & Characterization, NLO crystal, Supercapacitors, Thin films
		Chemistry	Physical Organic Chemistry, Adsorption Studies, Polymeric Hydrogels, Biomedical Materials, Tissue Regeneration, Electrochemical And Fluorescent Sensors, Analytical and Spectroscopical Studies, Material Preparation, Biological Studies, Molecular Modeling Of Materials, Computational Chemistry, Computational Materials Chemistry, Molecular Modeling and

			Simulation, Organic Chemistry, Medicinal Chemistry, Crop Protection Chemistry and Polymer chemistry
		Mathematics	Operations Research, Topology, Number Theory, Fuzzy, Operation Research, Non Linear Control Theory, Mathematical Modelling, Difference Equations, Continuous And Discrete Fractional Calculus, Applied Mathematics
		English	Indian Writing in English, British Literature, Vampire Literature, Film studies, Gothic Fiction, Feminism, Women's writing, Canadian Literature
		*Social Sciences	Sociology, Political Sciences, Tribal & Indigenous studies, Community development
4.	Pharmacy	Pharmaceutical Sciences	Pharmacognosy, Pharmaceutical Analysis, Pharmacology, Pharmaceutical Biotechnology, Pharmacy Practice, Phytomedicine, Pharmaceutical Chemistry
5.	Physiotherapy	Physiotherapy	Physiotherapy
6.	Allied Health Sciences	Biochemistry	Molecular Neurodegeneration
7.	Agricultural Sciences	Entomology, Agronomy, Horticulture, Floriculture, Agribusiness Management, Agricultural Extension, Agricultural Economics, Agricultural Nanotechnology, Genetics and Plant Breeding, Plant Pathology	Entomology, Agronomy, Horticulture, Floriculture, Agribusiness Management, Agricultural Extension, Agricultural Economics, Agricultural Nanotechnology, Genetics and Plant Breeding, Plant Pathology Vegetable Science (Vegetable Breeding), Fruit Culture, Postharvest, Landscaping, Biotechnology, Agricultural Journalism
8.	Management	Finance, HRM, Commerce	**Finance, HRM, Management Studies

* **Supervisors are available in the School of Law for these specializations.**
** **Supervisors are available in both the School of Law and Management for these specializations.**

3. A relaxation of **5% of marks, from 55% to 50%** or an equivalent relaxation of grade is allowed for those belonging to **SC/ST/OBC (non-creamy layer)/differently-abled** categories for all the disciplines except the Agricultural Sciences.

4. Qualifying the **Pre-registration Ph.D. Program Eligibility Entrance Examination** (Exemption to candidates under category 5. only)

5. NET/SET/GATE/GPAT/NEET PG or similar National entrance exam qualified candidates or **JRF/SRF/Project Fellows** (Under sponsored research projects) shall be **exempted** from clearing the Pre-Registration Ph.D. Entrance Examination and they shall be eligible to appear for interview and register for Ph.D. Program.

DURATION

S. No.	Ph.D. Type	Duration (including course work)	
		Minimum	Maximum
1.	Full Time	3 years	6 years
2.	Part Time	4 years	6 years

A maximum of additional two (2) years can be given through a process of re-registration. Total period for completion of a Ph.D. programme should not exceed eight (8) years from the date of provisional Ph.D. registration order.

The women candidates and differently-abled candidates (more than 40% Disability) shall be allowed a further relaxation of 2 years in the maximum duration for Ph.D. (maximum period should not exceed 10 years).

In addition, women candidates may be provided Maternity Leave/Child Care Leave for up to 240 days once in the entire duration of Ph.D. research.

ADMISSION PROCEDURE

a) Advertisement for the Ph.D. admission will be posted on the University webpage and on the newspaper/social media twice a year.

b) The candidates shall submit the online application on prescribed deadlines.

c) The applications received will be scrutinized and eligible candidates will be called for Ph.D. pre-registration eligibility entrance exam.

Exam Pattern:

Pre-registration eligibility entrance examination for Ph.D. Program

Time: 3 hr

S. No.	Tests	No. of MCQs	Marks
1	Test of Research Methodology	50	50
2	Test of Relevant Subject Knowledge	50	50
	Total	**100**	**100**

Research Methodology syllabus for Ph.D. entrance exam is attached in annexure A.

- Candidates who have scored 50 % marks in the entrance exam are eligible to be called for the interview. 5% mark relaxation will be given in the entrance exam for the candidates belonging to SC/ST/OBC/differently-abled category, Economically Weaker Section (EWS) and other categories of candidates as per the amendments of the DSU regulation from time to time.

- Number of candidates called for an interview will be based on the seats available in the specific discipline.

d) Followed by the entrance test, interview will be conducted by the University wherein the doctoral candidates are expected to discuss their research interest/area before the Selection Committee. Based on the discipline of the shortlisted candidates, Deans of the respective school will nominate 3-5 faculty members who are recognized as supervisors for the Ph.D. interview selection committee.

The Ph.D. interview selection committee will consider the following aspects whether

- The candidate possesses the competence for the proposed research work;
- The research work can be undertaken at the Institution
- The proposed area of research can contribute to new/additional knowledge

Candidates must score a minimum of 50% marks in the interview. Weightage split-up for marks scored in entrance exam and interview round will be 70 and 30%, respectively. Based on the above weightage, candidates must achieve a minimum of 50% overall marks for the Ph.D. registration, 5% relaxation will be given in the selection for the candidates belonging to SC/ST/OBC/differently-abled category, Economically Weaker

Section (EWS) and other categories of candidates as per the amendments of the DSU regulation from time to time.

Candidates will be selected and meritorious full-time candidates will be offered with DSU Doctoral fellowship based on their overall performance and as recommended by selection committee and final approval by Dean – Research.

e) Research scholars are encouraged to identify their prospective research supervisor from the list of recognized supervisors on the University webpage. Research scholars have the freedom to identify their supervisors.

FEES STRUCTURE

Program	Caution Deposit Fee (One Time)	Tuition Fee (Per Annum)	Online Application Fee (One Time)
Ph.D. Full Time	Rs. 5,000	Rs. 40,000	Rs. 1,000
Ph.D. Part Time (Internal)	Rs. 5,000	Rs. 30,000	Rs. 1,000
Ph.D. Part Time (External)	Rs. 5,000	Rs. 40,000	Rs. 1,000

ANNEXURE – A

SYLLABUS OF RESEARCH METHODOLOGY for Ph.D. Entrance Exam

1. Meaning of research; objectives of research; basic steps of research; criteria of good research; types of research.
2. Meaning of research problem; selection of research problem.
3. Review of related literature- Meaning, necessity and sources.
4. Hypothesis- Meaning, function and types of hypothesis; Null/Alternative hypothesis
5. Variables- Meaning and types.
6. Research design: Types of research design- exploratory, descriptive, diagnostic and experimental.
7. Sampling- Meaning and types of sampling; Probability and Non-Probability.
8. Tools and techniques of data collection- questionnaire, schedule, interview, observation, case study, survey etc.
9. Statistics and its significance in research.
10. Research reports: Writing preliminaries, main body of research, references and bibliography; Meaning and importance of workshop, seminar, conference, symposium etc. in research.
11. Plagiarism- Concept and significance of plagiarism.

Reference

Kothari, C. R. and G. Garg (2019), Research Methodology: Methods and Techniques, Fourth MultiColour Edition, New Age International Publishers.