

SHIV NADAR UNIVERSITY

Department of Economics

School of Humanities and Social Sciences

Prospectus
Ph.D. in Economics

CONTACT INFORMATION:

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Overview

The Department of Economics at Shiv Nadar University, established in 2012, has quickly established its reputation as one of the leading centres of learning and research in the country. The department has an active research environment and the faculty members are committed to guiding and supporting doctoral candidates throughout their doctoral thesis. The expectation is that upon successfully completing the doctoral program, the candidates will be at the frontiers of their respective research fields and will contribute actively towards advancing the body of knowledge.

The first step in the process of admission to the doctoral programme involves shortlisting potential candidates based on their application details. The next steps will comprise a written test and an interview. Shortlisted applicants will be judged on the basis of their knowledge of economics at the post-graduate (Master's) level, and on their ability to identify and execute potential research topics. Candidates who are selected, and subsequently join the programme, will be required to satisfactorily complete one year of compulsory coursework, with the option of taking elective courses that are on offer thereafter. The areas of expertise of faculty members in the economics department include Macroeconomics, Microeconomic Theory, Applied Econometrics, Environmental Economics, International Trade, Mathematical Economics, Development Economics, Labour Economics, Health Economics, Economic Growth, Public Economics, Game Theory, Network Theory and Industrial Organization. The candidates admitted into the program are provided very generous assistantships for four years.

Details regarding eligibility to the doctoral programme, admission process, programme structure, placement of graduated doctoral students and faculty expertise are outlined below.

Eligibility Conditions and Admission Process

Prospective candidates must have obtained at least 55% in aggregate in a post-graduate degree in any discipline. Candidates will be selected based on their performance in the admission process (subject to the minimum eligibility condition being met). Interested candidates are requested to follow the online application link on the economics department webpage. The application fee may be paid online.

Applicants who are shortlisted following the first stage of the screening process are given a written test and interviewed. Relevant details of the examination process and timeline are periodically updated on the department’s website.

The objective of the admission process will be to assess applicants on their knowledge of economics at the post-graduate level and on their ability to formulate and execute research ideas. The syllabus for the written test is provided in this document.

Structure of the doctoral programme

Admitted doctoral candidates are expected to complete their doctoral dissertation within four years. The first year of the programme is devoted to compulsory coursework, which will provide a foundation for undertaking research work, which starts from the second year. The table below contains the list of courses that must be successfully completed in the first year:

Semester I (Monsoon Semester)	Semester II (Spring Semester)
Microeconomics I	Microeconomics II
Macroeconomics I	Macroeconomics II
Mathematical Methods	Computational Economics
Statistics	Econometrics I
Programming Language (optional)	Research Methodology

It is expected that by the end of the first year, the doctoral candidates will be able to identify a research area of interest and choose a faculty member as their dissertation advisor. After successful completion of the first-year foundational courses, the candidates would also have the option of taking elective courses that are offered by the department. The following is the list of *possible optional courses* offered by the department:

Game Theory	Econometrics II
Advanced Mathematical Economics	Financial Economics
Industrial Organisation	Corporate Finance
Public Economics	International Finance
International Trade	Time Series Analysis
Environmental Economics	Development Economics
Growth and Business Cycle	Social Choice Theory
Machine Learning in Economics	Labour Economics
Health Economics	Mechanism Design

Placements:

In the past, our PhD graduates have found various research and academic placements. Examples include, Assistant Professor position at Indira Gandhi Institute of Development Research (IGIDR, Mumbai); Evaluation Specialist at International Initiative for Impact Evaluation (3ie); Visiting Assistant Professor position at Indian Statistical Institute (ISI, Delhi); and Research Associate position, with the Chief Minister Good Governance Programme, Ashoka University, NCR.

Syllabus for the Written test

Microeconomics:

Preference Relations, Choice Rules, Weak Axiom of Revealed Preference, Utility Representation of Preferences, Utility maximisation, Expenditure minimisation, Aggregation of individual demand, Production Sets, Profit maximisation, Cost minimisation, Choice under uncertainty, Game theory and strategic interaction and applications (equilibrium concepts for normal form games, extensive form games, games of incomplete information)

Macroeconomics: Neoclassical growth model – Solow model, Dynamic optimisation, Micro-foundations of dynamic macroeconomic model – consumption

as consumer's optimisation problem, investment as firm's optimisation problem, fiscal policy and Ricardian equivalence, monetary policy (classical dichotomy and money non-neutrality)

Statistics and Econometrics: Probability theory, Statistical Inference, Linear Regression Models and Least Squares, Heteroskedasticity, Multicollinearity, Misspecified models, Endogeneity and Instrumental Variables, Maximum Likelihood Estimation, Binary Choice Models: Probit and Logit.

Mathematical Economics: Linear Algebra, Real Analysis, Concave-convex functions, Optimisation at a level that is appropriate for post-graduate economics

Department Faculty¹

- **Subhra K. Bhattacharya** (Assistant Professor)
Ph.D. (Iowa State University)
Specialization: Public Economics, Development Economics, Game Theory, Finance.
- **Trishita Ray Barman** (Assistant Professor)
Ph.D. (Indian Statistical Institute)
Specialization: Growth Theory, Public Economics
- **Shampa Bhattacharjee** (Assistant Professor)
Ph.D. (University of British Columbia)
Specialization: Development Economics, Health Economics, Political Economy
- **Shraman Banerjee** (Assistant Professor)
Ph.D. (Southern Methodist University)
Specialization: Micro Economic Theory; Mechanism Design.
- **Partha Chatterjee** (Professor & Head of the Department)
Ph.D. (University of Minnesota)
Specialization: Macroeconomics, International Economics.

¹ For detailed faculty profiles, refer to department's webpage: <https://economics.snu.edu.in>

- **Arka Roy Chaudhuri** (Assistant Professor)
Ph.D. (University of British Columbia)
Specialization: Economics of Education; Development Economics.
- **Ashokankur Datta** (Assistant Professor)
Ph.D. (Indian Statistical Institute)
Specialization: Environmental Economics, Development Economics
- **Kurt Horner** (Assistant Professor)
Ph.D. (University of California, Irvine)
Specialization: Macroeconomics; Industrial Organization.
- **Abhimanyu Khan** (Assistant Professor)
Ph.D. (Maastricht University)
Specialization: Applied Microeconomic Theory
- **Anup Pramanik** (Assistant Professor)
Ph.D. (Indian Statistical Institute)
Specialization: Game Theory, Mechanism Design
- **Ram Ranjan** (Associate Professor)
Ph.D. (Penn State University)
Specialization: Environmental Economics; Development Economics.
- **Gitanjali Sen** (Associate Professor)
Ph.D. (University of Missouri-Columbia)
Specialization: Applied Microeconomics; Development Economics.
- **Suchishmita Tarafdar** (Associate Professor)
Ph.D. (Arizona State University)
Specialization: Macroeconomics, Theory of Optimization.