

**INDIAN INSTITUTE OF TECHNOLOGY
DHARWAD**



॥ सा विद्या या विमुक्तये ॥

भारतीय प्रौद्योगिकी संस्थान धारवाड

Indian Institute of Technology Dharwad

Department of Humanities and Social Sciences

Information Brochure

Ph.D. Admissions

Autumn Semester (2019-20)

A. SCHEDULE OF Ph.D. ADMISSION

S. No.	Particulars	Dates
1	Availability of online application forms	
2	Last date for submission of completed application forms	Friday, 17/05/2019
3	Listing of shortlisted candidates for the Selection Process ¹	Friday, 31/05/2019
4	Date for the Selection / Examination Process	Thursday, 04/07/2019
5	Declaration of the Result of the Written Test	Thursday, 04/07/2019
6	Date for the Interview Process	Thursday, 04/07/2019
7	Display of the final result ²	Monday, 08/07/2019
8	Last date for the Fee Payment	Friday, 19/07/2019
9	Date of Joining	Monday, 29/07/2019

B. ELIGIBILITY FOR ADMISSION

Category	Minimum Eligibility
General	55% aggregate overall in Masters, (without round off), or CPI 5.5 on the scale of 10
OBC	55% aggregate overall in Masters, (without round off), or CPI 5.5 on the scale of 10
SC	50% aggregate overall in Masters, (without round off), or CPI 5 on the scale of 10
ST	50% aggregate overall in Masters, (without round off), or CPI 5 on the scale of 10
PwD	50% aggregate overall in Masters, (without round off), or CPI 5 on the scale of 10

Please Note: Corresponding proportional requirements are applicable when the scales are other than on 0-10 (for example, 4.4 on a scale of 0-8 for General Category Candidates). For SC/ST/PwD category candidates, a relaxation of 5% in the qualifying degree is applicable.

Essential requirements for Economics

1. UGC-NET/GATE Qualified or M.Phil. in Economics
2. Master's degree in Economics/Engineering/Science/and allied fields

Essential requirements for Philosophy

Master's degree in Philosophy

UGC-NET Qualified or M.Phil. in Philosophy.

^{1 & 2} Will be announced on the institute webpage

C. APPLICATION CATEGORIES AND FINANCIAL SUPPORT

The Department of Humanities and Social Sciences admits Ph.D. candidates under the full time research scholarship categories of Teaching Assistantship (TA) and Fellowship Award (FA) only.

C.1. Fellowship Awardees

These students are financially supported under various Govt. / Semi Govt. schemes like CSIR, UGC, DAE, DST or DST INSPIRE etc. and some other organizations. The admission procedure and other requirements are the same as applicable to TA.

C.2. Teaching Assistantship (TA)

Funded by MHRD, the TAs are expected to assist in the academic/administrative work for smooth functioning of the Institute. Students under this category are entitled to financial support as per MHRD norms.

For students with MSc./M.Tech./M.E./M.Phil. or equivalent degree as the qualifying degree, the assistantship is payable for a maximum duration of 5 years or up to the thesis submission, whichever is earlier. At present, the monthly rate of assistantship is 25,000 for the first 2 years and enhanced rate of 28,000/- for the remaining period.

For students with B.Tech./B.E. or equivalent degree and students with M.Sc. or equivalent as the qualifying degree and having valid GATE score or having Junior Research fellowship (JRF) of UGC/CSIR or DST INSPIRE fellowship, the assistantship is payable for a maximum duration of 5 years or up to the thesis submission, whichever is earlier. At present, the monthly rate of assistantship is ₹25,000/- for the first two years and enhanced rate of ₹28,000/- for the remaining period.

To get Teaching Assistantship, the students concerned must assist in teaching, research and/or administrative work as assigned by the respective Academic Unit to the extent of 8 hours of work per week.

The continuation of the assistantship will be subject to satisfactory performance of the duties assigned by the Departments as well as satisfactory academic performance.

Employees on the rolls (with or without pay) of any organization are not eligible for admission under this category.

As per MHRD directives, the employees of any organizations with or without pay are not eligible for admission under TA category. Candidates selected in this category have to resign from the current job and submit a relieving letter from their employer before joining the

programme. Students getting assistantships from the Institute may join projects sponsored by external agencies and obtain corresponding fellowships in lieu of TA ship.

D. GUIDELINES FOR THE SHORTLISTED APPLICANTS

The following are the important guidelines of the institute to be followed by the shortlisted applicants on the day(s) of the selection process.

1. Shortlisted applicants should report to the institute on 4th of July, 2019 at 8.00 am.
2. No accommodation will be provided for the candidates during the selection process or interview.
3. Applicants should bring:
 - a. Photo ID card (any one from these: PAN/AADHAR/Driving Licence/Voter ID/Passport/Govt. issued ID/Educational Institute ID)
 - b. Printed copy of the application
 - c. Thesis/dissertation/report of M.Tech./M.E./MSc-Engineering or equivalent degree
 - d. Copy of certificates and mark-sheets
 - e. Two recent passport size photographs
 - f. Scientific calculator

D.1. DO NOT's

- a. Mobile phones are not allowed in the examination hall or in the interview room
- b. Department's decision is the final decision regarding any matter pertaining to this selection process.
- c. Institute doesn't take any responsibility of your luggage/items that you leave before entering the examination hall.

E. MODALITY OF THE SELECTION PROCESS

The following are important guidelines for shortlisted candidates taking the screening test and interview:

1. Shortlisted candidates should report the institute on **04th of July, 2019 at 8:00 AM.**
2. No accommodation will be provided in the campus during the written test/interview
3. Please carry the following:
 - Printed copy of the online submitted application,
 - Copy of Application Fees Receipt
 - Detailed Research Proposal/Research Interests
 - Statement of Purpose
 - Government issued photo id card,

- Date of Birth certificate,
- Degree certificate/s along with marks cards/aggregate percentage,
- Junior Research Fellowship offer letter from UGC/CSIR/INSPIRE fellowship or any other funding agencies
- Caste certificate,
- Income certificate, etc.

Written Test Details: The written test will be for two hours and carry a total of 50 marks.

Interview Details: The interview will carry 50 marks. Candidates appearing for **Written Test** may or may not be shortlisted for the **Interview**, based on their performance.

F. RESEARCH TOPICS

Research Areas for Economics: Microeconomic Theory, Applied game theory, Applied microeconomics, Economics of Conflict, Political Economics.

Research Areas for Philosophy:

Broad research area: Analytic Philosophy

Specific research areas within analytic philosophy: Metaphysics, Philosophy of Language, Ethics and Epistemology

G. SYLLABUS FOR SCREENING TEST AND INTERVIEWS

Syllabus for Economics:

Consumer Behaviour, Production and Costs, Market Environments –Perfect Competition, Monopoly, Monopolistic Competition, Oligopoly.

National Income Accounting Methods, Classical Model, Keynesian Model, IS-LM Model, Fiscal and Monetary Policies, Solow Growth Model, Inflation, Index Numbers, Indian Money Market and RBI's Monetary Policy.

Vectors and matrices, matrix operations, determinants.

Functions, limits, continuity, differentiation of functions of one or more variables. Unconstrained optimization, definite and indefinite integrals, integration by parts and integration by substitution. Constrained and Unconstrained Optimization: First and Second order conditions.

Elementary probability theory, conditional probability, Bayes' theorem, probability distributions –Binomial, Poisson, Uniform and Normal, measures of central tendency, skewness, kurtosis, dispersion, correlation and regression, Assumptions of the CLRM and properties of the estimators, OLS, Violations of CLRM assumptions.

Suggested Readings:

1. Intermediate Microeconomics by Hal R. Varian
2. Microeconomic Analysis by Hal R. Varian
3. Macroeconomics by Rudiger Dornbusch & Stanley Fischer
4. Principles of Macroeconomics by N. Gregory Mankiw
5. Fundamental Methods of Mathematical Economics by Alpha C. Chiang
6. John E. Freund's Mathematical Statistics with Applications
7. Introductory econometrics, A Modern Approach by Jeffrey Wooldridge

Syllabus for Philosophy:

1. Classical Indian Philosophy

Vedic and Upanisadic world – views: Rta (the cosmic order), the concept of rna (duty), Atman, Brahman, sreyas and preyas Karma, samsara, moksa.

Carvaka: Pratyaksa as the only pramana, critique of anumana and sabda, rejection of non-material entities and of dharma and moksa.

Jainism: Concept of reality – sat, dravya, guna, paryaya, Jiva, ajiva, anekantavada, syadvada and nayavada; theory of knowledge; bondage and liberation.

Buddhism: Four noble truths, astangamarga, nirvana, madhyam pratipad, pratityasamutpada, ksanabhahgavada, anatmavada, Schools of Buddhism: Vaibhasika, Sautrantika, Yogacara and Madhyamika.

Nyaya: Prama and aprama, pramanya and apramanya; pramdna: pratyaksa nirvikalpaka, savikalpaka, laukika and alaukika; anurndna: anvayavyatireka, lingapardmarsa uydpti.

Classification: vyaptigrahopayas, hetvdbhasa, upamana.

Sabda: Sakti, laksana, akanksa, yogyata, sannidhi and tatparya, Concept of God, arguments for the existence of God, adrsta, nihsryeasa.

Vaisesika: Concepts of padartha, dravya, guna, karma, samanya, samavaya, visesa, abhdua, Asatkaryavada, samavayu asamavayi nimitta karana, paramanuvada adrsta.

Samkhya: Satkaryavada, prakrti and its evolutes, arguments for the existence of prakrti, nature of purusa, arguments for the existence and plurality of purusa relationship between purusa and prakrti.

Yoga: Eight – fold path of yoga, the role of God in yoga.

Purva – Mimamsa: Sruti and its importance, Sabdanityavada, Jatisaktivada, Kumarila and Prabhakara Schools of mimamsa and their major points of difference.

Advaita – Rejection of difference: Adhyasa, maya, three grades of satta, Jiva, Jivanmukti, Vivartavada.

Visistadvaita: Saguna Brahman, refutation of maya, aprthaksiddhi parindmavada, Jiva, bhakti and prapatti, Dvaita – Rejection of nirguna brahman and maya, bheda and saksi, bhakti.

2. Classical Western Philosophy

Socrates: Theory of Knowledge, The concept of virtue.

Plato: Theory of knowledge, theory of Ideas, the method of dialectic, soul and God.

Aristotle: Critique of Plato's theory of Ideas, theory of causation, form and matter, potentiality and actuality, soul and God.

3. Modern Western Philosophy

Rationalism:

Descartes: Doubt and methodological scepticism, I think, therefore I am, Mind-body dualism.

Spinoza: Substance, Attribute and Mode, the concept of 'God or Nature'.

Leibniz: Monadology, truths of reason and truths of fact, principles of non – contradiction, sufficient reason and identity of indiscernibles, the doctrine of pre – established harmony.

Empiricism:

Locke: Ideas and their classification, refutation of innate ideas, theory of knowledge, three grades of knowledge, theory of substance, distinction between primary and secondary qualities.

Berkeley: Rejection of the distinction between primary and secondary qualities, immaterialism, critique of abstract ideas, esse est percipi, the problem of solipsism; God and self.

Hume: Impressions and ideas, knowledge concerning relations of ideas and matters of fact, induction and causality, the external world and the self, personal identity, rejection of metaphysics, scepticism.

Kant: Classification of judgements, possibility of synthetic a priori judgements, forms of sensibility, categories of understanding, the metaphysical and the transcendental deduction of the categories, phenomenon and noumenon.

Russell: Logical atomism and Theory of Descriptions.

Wittgenstein: Language and reality, facts and objects, names and propositions, the picture theory, meaning and use, forms of life.