DEPARTMENT OF ECONOMICS

HIMACHAL PRADESH UNIVERSITY

[NAAC Accredited 'A' Grade University]

Summer Hill, Shimla-171005

Regulations and Syllabus

Course Work of PhD Economics

Annexure 'D'

[CBCS]

Approved by Board of Studies held on 04-06-2025

Approved by Faculty of Social Sciences 06-06-2025

Department of Economics
Syllabus for Course Work for Ph. D in Economics

The following Credit Based Credit Scheme for Course Work for PhD in Economics has been prepared and proposed by the Department Council for implementation w.e.f. academic session 2024-25onwards. There shall be three courses of the study and one Thesis.

The Course work is: (i) in addition to the thesis which every PhD student is required to complete under the supervision of a thesis supervisor allotted for the purpose, (ii) is compulsory for all students who are admitted to the PhD programme after MA (Economics) and iii) is not applicable to students who have successfully completed M. Phil in Economics.

NOTE: Students who have already completed their M. Phil Degree are exempt from course work as per HP University Ordinance 16.5 (c).

The following Credit Based Credit Scheme for Course Work for PhD in Economics prepared and proposed by the Department Council for implementation w.e.f. the academic session 2024-25 onwards was considered and approved by PG BoS on 04-06-2025 and by Faculty of Social Sciences on 06-06-2025.The scheme is placed before the Academic Council for consideration and approval.

Table 1: Courses with Codes, Credits, Contact Hours and Marks Scheme for PhD in Economics

Duration	Course Code	Nature of Course	Course Name	Credits	Theory Contact Hours (L-5Hrs/Tutorial -1 hour)		Marks Scheme
					Lecture Credits	Tutorial (Seminar/ Assignment/GD/Quiz) Credits	
1st Six Months from Registration	PDEC-11	DSC	Research Methods, and Quantitative Techniques	5	4	1	100
	PDEC-12	DSC	Advanced Economic Theory	5	4	1	100
	RPE-Ph.D.	DSC	Research and Publication Ethics	2	1	1	50
			Grand Total* (1+2+3)	**12**	**9**	**3**	**Total Marks = 250**

I. NOTE: In Reference to Table 1 The Following Points A) and B) are relevant:

A) Course code descriptions: the codes for the course on offer is explained as follows:

1. Discipline Specific Core Courses (DSC), e.g., PDEC-11

Here: In **PDEC**: **PD** denotes PhD (Doctor of Philosophy); **E** denotes Economics and **C** denotes Compulsory Course. Similarly, **11** represents 1st Semester 1st Course.

2. The student is required to complete the coursework within six months of admission to the PhD Programme.

B) This Course work is:

i) Compulsory for all students who are admitted to the PhD programme after MA (Economics) based on entrance test/JRF/any other scholarship as permitted by Himachal Pradesh University, without M. Phil. (Economics). This is in accordance with the provisions of Clause 16.5 (c) of the Ordinance of this University.

ii) Not applicable to students who have successfully completed M. Phil in Economics.

iii) In addition to the thesis which every PhD student is required to complete under the supervision of a thesis supervisor allotted for the purpose.

C) General Information

1. Number of seats, eligibility, basis of admission, age limit, reservation, fee structure, scheme of examination and qualifying marks will be as per the University rules as

prescribed in the Himachal Pradesh University Ordinance and Handbook of Information from time to time.

2. In case of ambiguity or conflict in provisions, the HP University Ordinance/Guidelines adopted by this University shall prevail.

II DURATION

As per HP University Ordinance/ Rules

III SCHEME OF COURSES

Three Core Courses constitute the course work for Ph. D programme in Economics.

Table 2: The number & type of courses to be completed.

Courses	I	Remark
Discipline Specific Core Courses (DSC)	**03**	Course work is to be completed within the first six months of registration in the Ph. D Programme
Total Number of Courses	**03**	

1. **Discipline Specific Core Compulsory Courses (03 Core Courses)**

   1) The syllabi for DSCcourse code PDEC – 11, course code PDEC - 12 and course code PDEC – 13 are specified in five units. Each question paper shall consist of Eleven questions in all. The first ten (10) questions of explanatory answers (1,2,3,……10) of twelve (12) marks eachwill consists of one question from each unit, with internal choice provided, meaning there will be two (2) questions from each unit (5 X 2=10). The student will be required to attempt one question from each Unit. The eleventh (11^{th}) question will consist of ten (10) short answer type question using roman numerals (i, ii,iii,…….x) each with five (5) marks covering all the units. The students will be required to attempt any eight (8) questions out of ten (10).
   2) Duration of each DSC exam will be three (3) hours.

III SCHEME OF EXAMINATION FOR COURSE WORK

MARKS Allotted to each paper:

A) DSC papers (PDEC-11 and PDEC – 12) shall be of 100 marks and **qualifying marks** in then two Courses shall be**50** per cent i.e., 50 marks in each paper.

B) DSC paper PDEC-13 shall be of 50 marks and qualifying marks in this course shall be 50 percent i.e., 25 marks.

PhD in Economics

Programme Outcome

Over the duration of study, students are expected to acquire:

- an understanding of the theoretical and practical dimensions of economics.
- the ability to analyse, evaluate and create solutions.
- competence to appraise, critically differentiate, build arguments, defend own view point and formulate creative solutions.
- a professional ethic and be a model both citizen within and outside the country and also a better academician/entrepreneur/researcher/consultant/ trainer/ Financial Analysts/ Economic Advisor etc.
- a research ethic to be intellectually honest and avoid any research & publication misconduct.
- heightened acumen for creative thinking, ability to analyse and evaluate economic issues.

DSC Course Code: PDEC - 11
RESEARCH METHODS AND QUANTITATIVE TECHNIQUES
Course Credits: 5

Maximum Marks: 100
Duration: 3 hours

Course Outcomes

This course is expected to enhance the student's competence by:

- imparting knowledge about various methods in research in economics
- Enhancing knowledge of quantitative techniques used in the empirical analysis of economic relationships.
- inculcating the ability to make practical applications of econometric tools through:
    - creating ability to estimate and interpret linear regression models and explain problems that arise when the assumptions of linear regression model are violated.
    - Explaining various concepts of econometrics such as autocorrelation, homoscedasticity etc. which have very wide significance in economic relations.

Unit - I

Methods of research in economics-descriptive, historical, inductive and deductive methods. Characteristics of, and steps in scientific methods of research. Research design-choice of research problem. Selection of appropriate methods for data collection, observational method, interview method and case study method. Construction of schedule/questionnaire. Guidelines for successful interviewing.

Unit -II

Model formulation, specification and estimation. Evaluation of parameters and classification of variables. Tests of restrictions and forecasting. Simple example and solutions of problems of autocorrelation, multicollinearity and heteroscedasticity (Applications are important, proofs are not required)

Unit – III

Regression with dummy explanatory variables. Regression with dummy dependent variables. Lagged models- The Koyck model, Nerlovis Partial adjustment and Almon (Polynomial)model. The problem of identification, Formal rule of identification (The order condition andrankcondition foridentification).Unit Root Test andCo Integration analysis.

Unit-IV

Linearprogramming:assumptionandmodeloflinearprogramming.ThesolutionofMaximization and Minimization problems by Simplex method. Duality- the dual problem anditseconomicinterpretation.

Input-Output analysis: Basic concepts- assumptions and the technological coefficient matrix.The Hawkins-Simon conditions. Solving an input-output system. Determination of valueadded. Openand ClosedInput-output models.

Unit-V

Extension of the linear regression model to non-linear relationships. Tests of restriction imposed on the relationship of two or more parameters. The Chow test. Specification errors and specification bias. Errors in Variables: their consequences and solutions. Method of inverse least squares.

SUGGESTED READINGS

- Allen R.G.D, 1959, Mathematical Economics, St. Martin's Press, New York.
- Blitxer C.R., P.B Clark & L.Taylor (eds) 1975. Economy- Wide Models and Development Planning, Oxford University Press, Oxford.
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- Daleep M. Nachane, Oxford University Press (2006) Econometrics: Theoretical Foundations and Empirical Perspective.
- Dorfman R, P.A Samuelson & B.M. Solow 19
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- Gujarati (2004), Basic Econometrics, Tata Mc-Graw Hill, 4th Edition.
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- Koutsoyiannis (1977), Theory of Econometrics, Macmillan.
- Luce R. D. and R. Raifee, 1957, Games and Decisions, John Wiley, New York.
- Macintyre, Alasdair (1967) A Short History of Ethics. London.
- Maddala (1977), Econometrics. Mc- Graw Hill.
- Nachane Daleep M., Oxford University Press (2006) Econometrics: Theoretical Foundations and Empirical Perspective
- Nagar L. and R.K Das, 1998, Statistics and Econometrics, Oxford University, Delhi.
- Shubik M., 1982, Game Theory in Social Sciences, MIT, Press, Cambridge, Mass.
- Theil (1961), Introduction to Econometrics, Prentice Hall of India, New Delhi.
- Wegner H. M, 1969, Principles of Operations Research, Prentice Hall of India.

DSC Course Code: PDEC - 12
ADVANCED ECONOMIC THEORY
Course Credits: 5

Maximum Marks: 100
Duration: 3 hours

Course Outcomes

This course is expected to enable the student to:

- describe the general methodology used in the microeconomics, with particular attention to construction and verification of economic models.
- identify all scientific theorizing involves the specification of simplified theoretical models within which very complex processes (such as the operation of modern economy) can be isolated and examined.
- appraise several methods that can be used to solve maximization and minimization problems as many economic models start with the assumption that economic agents (individual, firms, government agencies, and so forth) seek maximization of their welfare, given their limited resources.
- demonstrate the role of different variables viz. saving and consumption in growth equilibrium and to contrast the Phelps golden rule of accumulation.
- describe the features of new classical economic and new Keynesian economics in the context of modern economy.

Unit-I

Nature, Purpose, Development and types of Economic Theory. Principles that underlie individual choice. Hick's revision of demand Theory, Neumann Morgenstern method of measuring utility, Consumption under risk and uncertainty. Dynamic version of demand functions, indirectutilityfunctions.The Financial Markets and the Economy. The Behavioral Model of Cryert and March; Clark-Wicksteed-Walras 'Product Exhaustion' Theorem,

Unit - II

Welfare economics; Theory of the second best, social welfare functions and Arrow's impossibility theorem;Rawlsianconceptof justice; Equity efficiency trade-off, Criteria of Social Welfare, Maximization of Social Welfare, Determination of the welfare maximization output mix, commodity distribution and resource allocation.

Unit - III

Budget Deficits in the short and long run, cash and care, Credit Creation, Techniques of Credit Control, Bills Only Doctrine, Availability to Credit Doctrine (Roosa Effect), Covid-19 Economy, Coronavirus Pandemic and the Economics of Disruption. The Monetarist Counterrevolution, The Financial Crisis and Great Depression. Real Business Cycles and New KeynesianEconomics:EffectivenessofstabilizationpoliciesinISLMmodelinclosed&openeconomy. New Classical Economics, Optimal Monetary Policy, Optimal Fiscal Policy.

Unit - IV

ModernTheoriesofeconomic growth: Long Run Economic Growth Todaro's model of rural urban migration and unemployment, Schumpeter's Model, J.E. Meade's Model and Jorgenson models. Cambridge models ofeconomicGrowth:KaldorandRobinson,Savingand consumption in growth equilibrium; Phelps GoldenRule. RicardianandMarxiantheoriesofmacrodistribution.

Unit - V

DegreeofMonopolytheoryofKalecki's, Neo-Keynesian model of Kaldor, the modified model of Pasinetti. The New Keynesian theoryof aggregate supply. Phillips Curve; Trade-off and non-trade off aspects, Externalities, the environment and natural resources. Technical progress and income distribution, Poverty, Inequality and Discrimination.

SUGGESTED READINGS

- Abel, A., Bernanke, B.& Croushore, D., Macroeconomics,9th ed, Pearson Education, 2020.
- Archibald G. L. (ed.), Readings in the Theory of the Firm, Penguin, 1971.
- Bain J.S., Essays on Price Theory and Industrial Organization, Little Brown & Co., 1972.
- Banerjee, Abhijit and Esther Duflo, Good Economics for Hard Times, Juggernaut Books, New Delhi.
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- Bolton, P. & Dewatripont, M., Contract Theory, MIT Press, 2005.
- Branson, W. (2013), Macroeconomic Theory & Policy *3*rd ed, East West press, 2013.
- Chamber, R., Applied Production Analysis: A Dual Approach, Cambridge University Press, 1988.
- Dornbusch, R., Fischer, S., Startz, R., Macroeconomics, 12th ed, McGraw Hill Education, 2018.
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- Froyen T. Richard, Macro Economics, Theories and Policies, 10th Edition, Pearson, India.
- Gali, J., Monetary policy, inflation, and the business cycle,2nd ed, Princeton University Press, 2015.
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- Jones, C. (2020). Macroeconomics,5th ed, W.W. Norton, 2020.
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- Layard R, & A. Walters, Microeconomic Theory, McGraw Hill, 1978.
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- Mankiw, N. (2022), Macroeconomics,11th ed, Worth Publisher, 2022.
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- McEachern and Kaur, Micro Econ: A South Asian Perspective, Cengage Learning India Pvt. Ltd., 2021.
- Mishan E. J., A Survey of Welfare Economics 1939-1959, Economic Journal, 1960.
- Nicholson, W., & Snyder, C.,Microeconomic Theory,10th ed, Cengage Learning, 2010.
- Pindyck, R. S., & Rubinfeld, D. L., Microeconomics, 9TH ed, Pearson, 2018.
- Prince, University Press, Princeton, N. J. 1947.
- Romer, D., Advanced Macroeconomics,5th ed,McGraw-Hill, 2018.

- Silberstein, Price Behaviours of Firms, (A Survey Article), Economic Journal, 1970.
- Simon H.A., New Developments of the Theory of Firm, American Economic Review, 1962.
- Uribe, M., & Schmitt-Grohe, S., Open Economy Macroeconomics, Princeton University Press, 2017.
- Varian, H. R., Intermediate Microeconomics: A Modern Approach, 9th ed, New York: W.W. Norton & Company, 2014.
- Von Neumann and O. Morgenstern, Theory of Games and Economic Behavior.
- Walch, C., Monetary Theory & Policy, 4th ed, MIT Express, 2017.
- Wicens, M., Macroeconomic Theory,2nd ed, Princeton University press, 2011.
- Wilson & P.W.S. Andrews (ed.), Studies in the Price Mechanism, Oxford University Press, 1951.

Research and Publication Ethics

Course Code: RPE-PhD
(Common for all PhD students)
Course Credits: 2

Maximum Marks: 50
Duration: 3 hours

Course description

This course has a total of 6 units focusing on the basics of philosophy of science and ethic, research integrity, and publication ethics. Hands-on sessions are designed to identify research misconduct and predatory publications. Indexing and citation databases, open-access publications, research metrics (citations, h-index, Impact Factor, etc.), and plagiarism tools will be discussed in this course.

Objectives

a. Promote the importance of research integrity.
b. Discuss the principles of publication ethics.
c. Educate on identifying research misconduct and predatory publishing.
d. Discuss indexing and citation databases.
e. Provide information on open-access publications and research metrics.
f. Introduce various plagiarism detection tools.

Evaluation

Continuous assessment will be conducted through tutorials, assignments, quizzes, and group discussions. At the end of the course, a final written examination of 50 Marks will be conducted.

1. Students who have at least 75% attendance in classes will be considered eligible for the final written examination.

2. The exam will be conducted for a three-hour duration.

Note for Paper Setting

There will be 7 questions covering all the units. The first six questions (1, 2, 3, 4, 5 & 6) of 6 marks each will consist of one question from each unit, with internal choice provided, meaning there will be two questions from each unit. The 7th question will consist of 10 short answer type question using Roman numerals (i, ii, iii.... x) each with 2 marks. There will be at least one question for each unit, and students will be required to attempt any seven questions out of ten.

Unit 01: Philosophy and Ethics

1. Introduction to philosophy: definition, nature and scope, concept, branches
2. Ethics: definition, moral philosophy, nature of moral judgments and reactions

Unit 02: Scientific Conduct

1. Ethics with respect to science and research
2. Intellectual honesty and research integrity
3 Scientific misconducts: Falsification, Fabrication, and Plagiarism (FFP)
4. Redundant publications: duplicate and overlapping publications, salami slicing
5. Selective reporting and misrepresentation of data

Unit 03: Publication Ethics
1 Publication ethics: definition, introduction, and importance
2. Best practices/standards setting initiatives and guidelines: COPE, WAME, etc.
3. Conflicts of interest

4. Publication misconduct: definition, concept, problems that lead to unethical behaviour and vice-versa, types
5. Violation of publication ethics, authorship and contributor ship
6. Identification of publication misconduct, complaints and appeals
7. Predatory publishers and journals

Unit 04: Open Access Publishing

1. Open-access publications and initiatives
2. SHERPA/ROMEO online resource to check publisher copyright & self-archiving policies
3. Software tool to identify predatory publications developed by SPPO
4. Journal finder journal suggestion tools viz.JANE, Elsevier Journal Finder, Springer Journal, etc.

Unit 05: Publication Misconduct

A. Group Discussions
1. Subject-specific ethical issues, FFP, authorship
2. Conflicts of interest
3. Complaints and appeals: examples and fraud from India and abroad
B. Software tools
Use of plagiarism software like Turnitin, Urkund, and other open-source software tools

Unit 06: Databases and Research Metrics

A. Databases
1. Indexing databases
2. Citation databases: Web of Science, Scopus, etc.
B. Research Metrics
1. Impact Factor of journal as per Journal Citation Report, SNIP, SJR, IPP, Cite Score
2. Metrics: h-index, g index, i10 index, altmetrics

Suggested Readings

- Beall, J. (2012). Predatory publishers are corrupting open access. Nature, Vol. 489(7415), 179
  https://doi.org/10.1038/489179a.
- Bird, A. (2006). Philosophy of Science. Routledge.
- Bretag, Tracey (2016). The Handbook of Academic Integrity. Springer.
- Chaddah, P. (2018) Ethics in Competitive Research: Do not get scooped, do not get Plagiarized
  ISBN:978-9387480865.
- Grudnlewicz, Agnes, D. Moher, Kelly D. Cobey+32 authors (2019). Predatory journals: nodefinition, no defense. Nature, Vol. 576.
- Indian National Science Academy (2019). Ethics in Science Education, Research and Governance (2019). ISBN:978-81-939482-1-7.
  http://www.insaindia.res.in/pdf/Ethics Book.pdf
- Israel, Mark, lain Hay (2006). Research Ethics for Social Scientists. London.
- Lang, James M. (2013). Cheating Lessons. Learning from Academic Dishonesty. Harvard University Press.
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