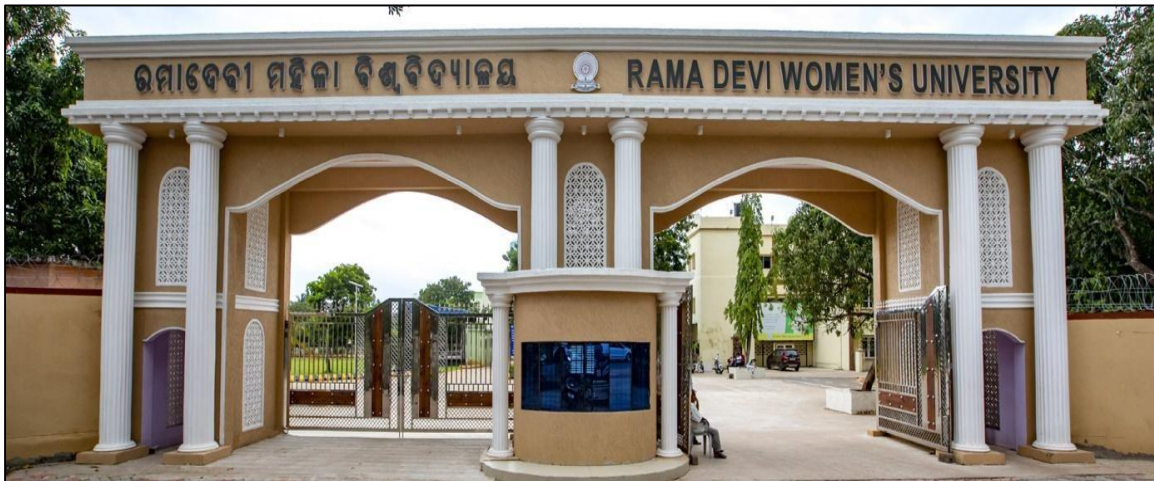


DEPARTMENT OF ECONOMICS

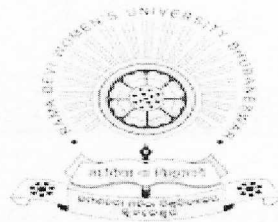
SYLLABUS OF Ph.D. PROGRAMME



RAMA DEVI WOMEN'S UNIVERSITY
Vidya Vihar, Bhubaneswar-751022, Odisha
Website: <https://rdwu.ac.in>

Department of Economics

Syllabus for Ph.D. in Economics



VIDYA VIHAR, BHUBANESWAR 751022

Rama Devi Women's University

M. S. Mohapatra
13.10.23
Controller of Examinations
R.D. Women's University
Bhubaneswar

Courses of Studies

PhD Course Work in Economics

Year-2021



RAMA DEVI WOMEN'S UNIVERSITY,

VIDYA VIHAR,

BHUBANESWAR- 751022

H. K. Das
20/4/23

22

4/20/22
25/7/23

Sparks
25/4/23

K. S. Das
25/4/23

B. Das
25.4.2023

Devi Das
26/4/23

S. Das
26/4/23

PhD Course Work in Economics

P G Department of Economics,
Rama Devi Women's University, Vidya Vihar,
Bhubaneswar- 751022

Course Title	Credits	Marks	Pass Marks	Units	Remarks
Research Methodology and Computer Applications	04	100	55%	04	Subject Specific
Applied Mathematics and Statistics	04	100	55%	04	Subject Specific
Presentation of Review of Related Literature	02	50	55%	NA	Subject Specific
Research and Publication Ethics	02	50	55%	Common	Common to all subjects as per UGC Recommendation

Sinha
25/4/23

Mandal
25.4.2023

Ram
25-4-23

K. Sahoo
25.4.23

A. S.
25/4/23

P.HD. in Economics Program

Rama Devi Women's University

Program Outcomes (POs):

The Ph.D. Program in Economics has been designed to obtain the following outcomes.

PO1: Creation of trained human resources for research in Theoretical and Empirical Modeling in Economics, and in diverse issues relating to Development Economics, through the induction of doctoral students in appropriate research areas.

PO2: Creation of trained human resources for regional economic research in Odisha and India.

PO3: Capability enhancement of the doctoral students at the University to undertake funded research projects for external development agencies.

PO4: Academically exploring and understanding the needs for regional economic development through a continuous dialogue with regional development agencies.

PO5: Developing economic research on policy issues in the region by instituting a collaborative mechanism.

PO6: Enhancing the role of Rama Devi Women's University as a major stakeholder within the regional development process.

PO7: Prepare research scholars to develop critical thinking to carry out investigation about various socio-economic issues objectively while bridging the gap between theory and practice.

PO8: Enhancing research scholars' employability through research and industry-oriented practical exposure.

PO9: Imparting hands-on training in statistical software packages used in the field of research and industry such as Excel, EViews, STATA, R, etc. in order to enhance computational ability of research scholars.

PO10: Equip research scholars with ethical, moral, and social values.

Program Specific Outcomes (PSOs):

PSO1: Understanding the basic and advanced concepts of microeconomics and macroeconomics for different sectors of the economy.

PSO2: Understanding the basic assumptions in various economic theories and enhance capabilities of developing ideas based on them.

PSO3: Derivation of tools and techniques helping empirical determination/estimation of demand, supply, output, money supply, inflation, employment, poverty, GDP, BOP and optimum inputs usage. Distribution of resources for maximum welfare and identifying causes of market failure and its consequences.

PSO4: Doctoral research tries to deepen specialization in a particular professional direction.

PSO5: Doctoral research helps in shaping the future of specialist by individual cognitive activities aimed at obtaining new knowledge, solving theoretical and practical problems.

Paper 01- Research Methodology and Computer Applications Course Outcomes (Cos):

After reading this paper, students should have the ability

CO1: To develop the analytical and applied skill of doing research on contemporary issues.

CO2: To enhance the ability of fundamental research.

CO3: To improve the knowledge of research methodologies.

CO4: To enable the use and application of statistical and econometric methods.

CO5: To develop the moral, ethical and social values of conducting research.

This paper consists of four modules having 4 credits and 100 marks. Each Module carries 25 marks. Test will be conducted after the completion of all the four units and the pass mark is 55 percent in aggregate.

Module I: Fundamentals of Research

Meaning of research in Economics: Different types of research. Research Methodology- Preparation of a research proposal and the formulation of research design, Methods and techniques of research- differences among them, the logical framework of investigation, Analysis of historical records. Review of Literature: Meaning, objectives, types, sources, stages and precautions; How to write review of literature chapter? Practical on review of literatures.

Module II: Data Collection and Processing

Methods of collecting primary data; Sampling techniques-sample size, sampling frame and sample collection, sampling errors and problems in sampling, Tools of data collection- Schedules and questionnaires; Nature of field work, Pilot study. Preparation for analysis, Editing, coding, Classification and Transcription of data, Tabulation, Construction of Frequency Table, Graphs/ Charts/Diagrams.

Module III: Statistical Analysis of Data

Descriptive Statistics- Measures of Central Tendency, Use of measures of Dispersion, Relationship and Index Numbers, Use of Correlation and Regression Inferential Statistics: Testing of Hypothesis- Z, t, Chi-square and F (Parametric and Non-parametric), Use of Correlation and Regression, Analysis of variance.

Module IV: Computer Application

Approaches to Computer Application: MS Word: Working with Text, Working with Tables, Graphics and Pages, Document Views and Formatting, and Mail-merge, and Referencing Style.

MS-Office and its application, File handling in window, various versions of MSOffice, Research publishing tool- MS-Word, Adobe acrobat, Graphics tool- MS Excel, MS-Power Point: Creating presentations and adding effects, Subject/field specific tools on www.freeware.com

Use of Internet: Fundamentals and Services – E-mail, FTP, Telnet, WWW

References:

1. Kothari, C. R. (2018): Research Methodology: Methods and Techniques, New Age International Pvt. Limited Publishers, New Delhi.
2. Gupta, S.C. (2012): Fundamentals of Statistics, Himalaya Publishing House, New Delhi. Dooley, D. (2008): Social Research Method, Prentice- Hall of India Pvt. Ltd., New Delhi. Cochran, W.G. (1977): Sampling Techniques, Wiley Eastern Limited, New Delhi.

Mapping of Course Outcomes with the Program Outcomes

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	5	5	5	4	2	4	4	5	5	4
CO2	4	4	5	5	4	2	4	4	2	5
CO3	4	5	4	4	4	4	5	5	5	4
CO4	5	4	5	2	5	5	2	4	4	2
CO5	5	4	4	5	4	2	4	5	2	4

Paper 02- Applied Mathematics and Statistics

Course Outcomes (Cos):

After reading this paper, students should have the ability

CO1: To enhance the mathematical and statistical understanding of doing research on relevant issues.

CO2: To improve the ability of making quantitative analysis of research issues.

CO3: To improve the basic knowledge of mathematics and statistics.

CO4: To enable the use and application of statistical and mathematical methods in research.

CO5: To develop new techniques of doing social science research.

This paper consists of four modules having 4 credits and 100 marks. Each Module carries 25 marks. Test will be conducted after the completion of all the four units and the pass mark is 55 percent in aggregate.

Module I:

Calculus of Single Variable and multivariable functions in Economics, Optimisation--Constrained and Unconstrained, Lagrangian Multiplier, Optimisation of CD and CES Production Functions, Log transformation of Non-Linear functions for Estimate of Growth Rates.

Module II:

Game Theory: Mixed Strategy, Dominance Property and Nash Equilibrium. Linear Programming: Basic Concepts, Solution of Maximisation and Minimisation Problems – Graphical and Simplex.

Module III: Regression Analysis –CLRM (Simple and Multiple), Problems in Regression-Multicollinearity, Heteroscedasticity, Autocorrelation, errors in variables and specification errors, remedies.

Module IV:

Discrimination Analysis and Cluster Analysis, Methods of Data reduction- Principal component and Factor analysis; Construction of composite Indices.

References:

1. Gujrati, D. and Sangeetha (2017): Basic Econometrics, Tata McGraw Hill Publishing Company Ltd. New Delhi.
2. Allen R GD (1974): Mathematical Analysis for Economics.
3. Chiang A C (1986): Fundamental Methods of Mathematical Economics.
4. Gass S I (1958): Linear Programming, Methods & Application.

5. Dowling T. W. (1992): Introduction to Mathematical Economics, McGraw Hill Publishing Ltd. New Delhi.

Mapping of Course Outcomes with the Program Outcomes

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	5	5	4	4	2	4	5	5	5	2
CO2	4	5	5	5	2	2	4	5	2	5
CO3	5	4	4	5	4	5	5	4	5	4
CO4	4	4	5	2	4	5	2	5	4	4
CO5	5	5	4	4	4	2	4	5	2	4

Paper 03- Review of Related Literature

Course Outcomes (Cos):

This paper aims to:

CO1: Preparing the students to select a problem on which they have to do intensive review of related studies

CO2: Developing the skill based thinking analytics and bridging the gap between theory and practice.

CO3: Encouraging the students to identify research gap, research questions and objective of the new research topic.

CO4: Nurturing the research-oriented ability of the students relating to contemporary issues.

CO5: Developing the moral, ethical and social values among the students.

Action Plan

Each student is required to select a problem on which she has to do intensive review of related studies under the supervision of a faculty member or the supervisor. She has to review adequate research studies related to the problem and prepare a report.

Each student is required to present the review of related studies through Power-Point. All the Ph.D. and P.G. students of the Department shall remain present and participate in the discussion. There will be an open viva-voce test after the presentation. Assessment shall be made on the basis the following criteria:

- 1) Relevance of the reviews.
- 2) Finding the research gap.
- 3) Standard and quality of writing the review.
- 4) Style of presentation.

- 5) Answering the question by Examiners
- 6) Clarification of queries raised by the participants.

DISTRIBUTION OF MARKS (Total: 50 Marks)

- 1) Report submission : 20 Marks
- 2) Presentation : 20 Marks
- 3) Viva-Voce Test : 10 Marks

Mapping of Course Outcomes with the Program Outcomes

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	4	4	5	5	4	4	4	4	5	5
CO2	5	5	4	5	5	5	4	5	4	4
CO3	4	5	2	5	4	2	5	5	4	2
CO4	5	4	4	4	5	4	4	5	4	5
CO5	2	4	5	4	4	5	5	5	5	4

Paper 04- Research and Publication Ethics

<p>PAPER: IV</p> <p>RESEARCH AND PUBLICATION ETHICS</p> <p>Credits: 02 Full Marks: 50</p> <p>(Common to All Subjects)</p>
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Course Outcomes (Cos):

This paper aims to:

CO1: Preparing the students about various fundamental knowledge of basics of philosophy of science and ethics, research integrity, publication ethics.

CO2: Nurturing the research-oriented ability of the students relating to identification of research problem, research gap, Identify research misconduct and predatory publications.

CO3: Developing the understanding of the students about Comprehend indexing and citations, open access publications, research metrics (citations, h-index, Impact Factor etc).

CO4: Create awareness among researchers about publication ethics and publication misconducts and use plagiarism tools for a valid and ethical research report.

CO5: Developing the moral, ethical and social values on various research-oriented issues.

BACKGROUND

This Paper has been incorporated in the Ph.D. course work under this University as per the UGC correspondence in December 2019 vide its 543rd Meeting held on 09 August 2019. The main aim of this course is to create awareness about publication ethics and publication misconducts. It is an interdisciplinary course with 02 credits. This course has 06 units focusing on basics of philosophy of science and ethics, research integrity, publication ethics. Hands-on-sessions are designed to identify research misconduct and predatory publications. Indexing and citation database, open access publications, research metrics and plagiarism tools are introduced in this course.

The course transaction modes shall be classroom teaching, guest lectures, group discussions and practical sessions. The evaluation of the course will be through continuous assessment processes such as tutorials, assignments quizzes, etc. Weightage will be given for active participation. Final examination will be conducted at the end of the course.

LEARNING OUTCOMES:

On completion of the course, the scholars will be able to-

- Understand fundamental knowledge of basics of philosophy of science and ethics, research integrity, publication ethics.
- Identify research misconduct and predatory publications.
- Comprehend indexing and citations, open access publications, research metrics (citations, h-index, Impact Factor etc).
- Use plagiarism tools for a valid and ethical research report.

COURSE STRUCTURE

Units	Unit Title
A:	THEORY
Unit-I	Philosophy and Ethics
Unit-II	Scientific Conduct
Unit-III	Publication Ethics
B:	PRACTICE
Unit-IV	Open Access Publishing
Unit-V	Publication Misconduct
Unit-VI	Database and Research Metrics

A. THEORY

Unit-I: Philosophy and Ethics

- Introduction to Philosophy: definition, nature and scope, concept, branches.
- Ethics: definition, moral philosophy, nature of moral judgement and reactions.

Unit-II: Scientific Conduct

- Ethics with respect to science and research
- Intellectual honesty and research integrity
- Scientific misconduct: Falsification, Fabrication, and Plagiarism (FFP)
- Redundant Publications: duplicate and overlapping publications.
- Selective reporting and misrepresentation of data.

Unit-III: Publication Ethics

- Publication ethics: definition, introduction and importance
- Best practices/standards setting initiatives and guidelines: COPE, WAME etc.
- Conflict interest
- Publication misconduct: definition, concept, problems that lead to unethical behaviour, types.
- Violation of publication ethics, authorship and contributor ship
- Identification of publication misconduct, complaints and appeals
- Predatory publishers and journals

B. PRACTICAL

Unit-IV: Open Access Publishing

- Open Access Publications and initiatives
- Online resource to check publisher copyright and self-archiving policies (SHERPA/RoMEO)
- Software tool to identify predatory publications developed by SPPU
- Journal finder/journal suggestion tools viz. Elsevier finder, Springer, Journal suggester etc.

Unit-V: Publication Misconduct

A. Group Discussion

- Subject Specific ethical issues, FFP, authorship
- Conflict of interest
- 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-VI: Database and Research Metrics

A. Databases

- Indexing databases
- Citation databases: Web of Science, Scopus. etc.

B. Research Metrics

- Impact Factor of journal as per Journal Citation Report.
- Metrics: h-index, g-index, i10 index, altmetrics

REFERENCES

Bird, A. (2006). *Philosophy of science*. Rutledge.

MacIntyre, A. (1967). *A short history of ethics*. London.

P.Chaddah (2018). *Ethics in competitive Research: Do not get scooped; do not get plagiarised*.

National Academy of Sciences (2009). *On being a scientist: A guide to responsible conduct in Research* (3rd Ed.), National Academics Press.

Resnik, D.B. (2011). What is ethics in research & why is it important. *National Institute of Environmental Health Sciences*, 1-10.

Beall, J. (2102). Predatory publishers are corrupting open access. *Nature*, 489 (7415), 179-179.

Indian National Science Academy (INSA). *Ethics in science education, research and governance* (2019).

Mapping of Course Outcomes with the Program Outcomes

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CO1	5	4	5	5	4	5	4	4	4	5
CO2	4	4	4	4	5	5	4	5	4	4
CO3	4	5	4	5	4	4	5	2	4	4
CO4	5	4	4	4	4	4	4	4	4	5
CO5	2	4	4	4	4	5	5	5	5	4