SHRI GURU RAM RAI UNIVERSITY

(Estd. by Govt. of Uttarakhand, vide Shri Guru Ram Rai University Act no. 03 of 2017)

Syllabus of Ph.D. Home Science
Effective from Academic Session
2024-2025

Course work for Ph.D registered Research scholar

The course work is compulsory and will carry 18 credits (As per UGC Regulations 2016, the credits assigned to the Ph.D course work shall be a minimum of 08 and a maximum of 18 credits). The breakup of these credits is as under:

1. **Research Methodology (4 credits)**: It includes Research Methodology, Quantitative Methods, Computer Application, Tools and Techniques including Instrumentation, Communication Skills.
2. **Research & Publication Ethics (2 credits)**: It includes research & publications ethical values like plagiarisms etc; it was recently introduce by UGC (December 2019) and compulsory to all universities in their pre Ph.D course work syllabus.
3. **Subject specific course work (8 credits):** There may be one or two subject specific papers.
4. **Field work (4 credits):** Seminar/ conference presentation, review literature and other academic activities.

Table 3.0: The Course Structure and the Assessment scheme

S.N.	Subject	credits	Total marks	Minimum marks to be scored for successful Completion
1.	Research methodology	4	80	40
2	Research & Publication Ethics	2	40	20
3.	Subject specific paper/s	8	160	80
4.	Field work	4	80	40
Total		**18**	**360**	**180**

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Evaluation of the course work will be done by the faculties of the University.

Admitted Research Scholar shall be required to undertake course work. The course work will be for a minimum period of one semester. Research Scholar will have to qualify course work papers in first two semesters. The course work shall be treated as pre-Ph.D preparation. The University shall decide the minimum qualifying requirement for allowing a Research Scholar to proceed further with the writing of the Ph.D thesis. If found necessary, course work may be carried out by doctoral Research Scholars in related departments/institutes either within or outside the University, for which due credit will be given to them.

Research Scholar/s who have done M.Phil from any recognized University and who were admitted to M.Phil through an entrance examination and had also undertaken course work at M.Phil level, will be exempted from Pre Ph.D course work.

COURSE STRUCTURE

Code	Subject	Credits	Internal Marks	External Marks	Total Marks	Minimum Marks to be scored for successful completion
PRMC101	Research Methodology	4	20	60	80	40
PREC 102	Research and Publication Ethics (RPE)	2	10	30	40	20
PHOC103	Research Issues in Community Resource Management and Extension Education	4	20	60	80	40

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Subject specific elective paper (Any one)		4	20	60	80	40
PHOE 104(a)	Research Issues in Food and Nutrition					
PHOE 104(b)	Research Issues in Human Development and Family Studies					
PHOE 104(c)	Research Issues in Textile and Clothing					
PHOE 104(d)	Research Issues in family Resource Management					
PHOC 105	Field work (Seminar / Conference Presentation / Review literature, Journal club and other activities assigned)	4	80		80	40
Total		**18**	**150**	**210**	**360**	**180**

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Core Paper

PRMC 101: Research Methodology **No. of credits: 04**

Paper–I: Research Methodology (Compulsory), Code: PRMC–101

Unit I: Concept & Types of Research

Meaning and importance of Research – Types of Research – Selection and formulation of Research Problem – Research Design, Classification of Research, Pure and Applied Research, Exploring or Formulative Research, Descriptive Research, Diagnostic Research/Study, Evaluation research/Studies, Action Research, Experimental Research, Analytical Study of Statistical Method, Historical Research.

Unit II: Methods Research

Surveys, Case Study, Field Studies General Survey of various Methods including Survey Method, Interdisciplinary Method, Case Study Method, Sampling Method, Statistical Method, Observation Method, Interview Method, Schedule Method, Questionnaire Method, Documentary Method, Library Method, Historical Method and Scientific Method. Characteristic Features of Scientific Method; Empirical Verifiable, Cumulative, Self - Correcting, Deterministic, Ethical & Ideological neutrality (Value Free), Statistical Generalizability.

Unit III: Data Collection and Data Analysis

Collection, Objectives and Classification of Data, Aims, Methods and Objects of Tabulation of Data, Forms and Processes of Interpretation and Presentation of Data.Primary, Secondary and Tertiary Data. Construction and adaptation of instruments, administration of questions and tests. Data organization in SPSS & Excel, Graphical representation of data, Definition and Aims of Content Analysis, Problems of Content Analysis, Computer and Content Analysis Discussion and Interpretation of results, Testing of Hypothesis: Logical and Statistical Techniques.

Unit IV: Report Writing

Locating Information on a Topic of Interest, Acquiring Copies of Articles of Interest, The Nature of Scientific Variables, Conceptual Versus Operational Definitions of Variables, Levels of Measurement, Various Paradigms, The Basic Format for a Research Report, Identification of the Parts of a Research Report,

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Citation and Referencing Styles, Essentials of Report Writing, Aids for Writing Good Research Report.

References:

1. Bagchi, Kanak Kanti (2007) Research Methodology in Social Sciences: A Practical Guide, Delhi, Abijeet Publications.
2. Kothari, C.R (2004) Research Methodology: An Introduction, Delhi, New Age.
3. Cooper, R. Donald and Pamela S. Schindler (2003) Business Research Methods, Delhi, Tata McGraw-Hill.
4. Flyvbjerg, Bent (2001) Making Social Science Matter: Why Social Inquiry Fails and How it can Succeed Again, United Kingdom, Cambridge University Press.
5. Goodde and Hatte (1952) Methods in Social Research, New York, McGraw – Hill.

Core Paper

RPEC 102: Paper II: Research and Publication Ethics (RPE)

No. of credits 02

The course comprises of six modulus listed in table below. Each module has 4-5 units.

Theory

RPE 01 Philosophy and Ethics

04 hours RPE 02 Scientific

Conduct 04 hours RPE 03

Publication Ethics 07 hours

Practice

RPE 04 Open Access publishing 04 hours

RPE 05 Publication Misconduct 04 hours

RPE 06 Databases and Research Metrics 07 hours

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Total **30 hours**

Theory

RPE 01Philosophy and Ethics (3 hours)

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

RPE 02 Scientific Conduct (5 hours)

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

RPE 03 Publication Ethics (7 hours)

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 behavior and vice versa, types
5. violation of publication ethics, authorship and contributorship
6. Identification of publication misconduct, complaints and appeals
7. Predatory publishers and journals

Practice

RPE 04: Open Access Publishing (4 hrs.)

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

RPE 05: Publication Misconduct

(4hrs.) A. Group Discussion

(2hrs.)

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 (2 hrs.)

Use of plagiarism software like Turnitin, Urkund and other open source software tools.

RPE 06 :Databases and Research

Metrics(7hrs.)

A. Databases (4 hrs)

1. Indexing databases
2. Citation databases: Web of Science, scopus, etc.

B. Research Metrics (3 hrs.)

1. Impact factor of journal as per journal Citation report, SNP, SJR, IPP, Cite score
2. Metrices: h-index, g index, i10 index, altmetrics.

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Core Paper

PHOC103 Paper III`: Research Issues in Community Resource Management and Extension Education

No. of credits 04

Unit I

Extension Education – Meaning, Philosophy, Objectives, Principles, Functions, Components of extension education
Methods of Approaching People – Individual, Group, Mass
Communication Technology
New ICT (Information Communication Technologies)
Audio-Visual Aids.

Unit II

Status of Women in India
Women Empowerment
Legislative and policy initiatives for women empowerment by the State
Self Help Group (SHG) and rural development
Local organizations and rural development i.e. Anganwadi,Panchayati Raj, Mahila Mandal and others

Unit III

Government policies, and programmes for development of women entrepreneur
Self employment and Entrepreneurship development through Home Science education
Schemes and Programmes for rural / community development
Extension Education Programmes / Schemes – related to Home Science

Unit IV

Disaster Management – Natural and Manmade calamities, its management
Local People's Movement and its role in community development – Chipko, Beej Bachao, Anti Liquor, Maiti, movements etc

References:

1. Textbook Extension Education Dr. S. V. Supe
2. Extension and community Development Directorate of Extension Govt. of India, New Delhi
3. Extension and Rural Development O. P. Dhama
4. Extension Education for Community Development Dhama O.P. and Bhatnagar
5. Extension Communication and Management Ray.

CO1	Define and remember extension education and communication, Status of women and women empowerment, Disaster Management.
CO2	Understand and describe extension education and communication, status of women and their empowerment, disaster management through community development.
CO3	Explain and apply knowledge related to extension education and communication, status of women and their empowerment, disaster management through community development.
CO4	Analyze and conclude about extension education and communication, status of women and their empowerment, disaster management through community development.
CO5	Evaluate and conclude extension education and communication, status of women and their empowerment, disaster management through community development.
CO6	Write about A/V aids and extension education, Women status and their empowerment, disaster management and community development.

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Electives:

PHOE 104(a): Research Issues in Food and Nutrition

No. of credits: 04 .

UNIT I

Major nutritional problems
National nutritional and health programmes to alleviate malnutrition
Nutritional and Health policy
Nutritional surveillance
National and international organizations
National programmes and policies regarding food production and distribution

UNIT II

Various techniques for assessment of nutritional status
Anthropometric measurements
Techniques for measurements, standards for references, indices, classification, interpretation of data
Clinical and Biochemical estimations for diagnosis of nutritional problems (protein energy malnutrition, vitamin deficiency, mineral deficiency etc.)
Dietary survey
Growth monitoring

UNIT III

Food and nutrition security
Hunger Index – Global and India State
Child Development Index

UNIT IV

Recent NHFS Findings – national and state level – maternal nutritional status; Mortality rate – neonatal, post neonatal, infant, child and under five; child nutritional status – height-for-age (stunting), weight-for-height (wasting) and weight-for-age (under-nutrition), nutritional deficiency and other relevant statistics

Unit V

Impact of Genetics on nutritional responses, gene-diet interactions and personalized nutrition, Microbial contamination, food adulteration, food laws and regulations

Effects of Processing on nutrient retention

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References:

1. Save The Children's Fund, 2008: The Child Development Index: Holding governments to account for children's wellbeing; www.savethechildren.org.uk/childindex
2. WFP and MSSRF. (2002) 'Food Insecurity Atlas of Rural India'. World Food Programme and M.S.Swaminathan Research Foundation
3. Gopaldas T & Seshadari S. 1987. *Nutrition Monitoring and Assessment*. Oxford University Press.
4. National Health Family Survey Reports
5. Jelliffe DB. 1966. *The Assessment of the Nutritional Status of the Community*. WHO.
6. *Nutrition Foundation of India Bulletin*. New Delhi.
7. Census 1981, 1991, 2001 and 2011.
8. India. A Reference Annual. Publication Division, Ministry of Information about Broad casting, Govt. of India.
9. UNICEF. *The State of World's Children*. Oxford University Press.

CO1	Define and memorize nutritional problem, surveillance, programmes and organizations, Techniques of nutritional assessment, nutrition security, NHFS report state and national level
CO2	Understand and explain techniques of nutritional assessment, nutrition security, NHFS report state and national level, nutritional problem, surveillance, programmes and organizations
CO3	Use knowledge related to nutritional problem, surveillance, programmes and organizations, Techniques of nutritional assessment, nutrition security, NHFS report state and national level
CO4	Analyze and conclude techniques of nutritional assessment, nutrition security, NHFS report state and national level, nutritional problem, surveillance, programmes and organizations
CO5	Critically evaluate nutritional problem, surveillance, programmes and organizations, Techniques of nutritional assessment, nutrition security, NHFS report state and national level
CO6	Express views on techniques of nutritional assessment, nutrition security, NHFS report state and national level, nutritional problem, surveillance, programmes and organizations

PHOE 104(b): Research Issues in Human Development and Family Studies

No. of credits 04

Unit I:

Need and methods for studying Human development

Psychological tests and their use, Issue of reliability, validity, standardization of tools and ethical considerations

Unit II:

Assessment of Mental Ability

Personality assessment
Assessment of Emotional Development

Unit III:
Differential Aptitude Test
Vocational interest scales
Academic tests
Tests for Assessment of Attitudes

Unit IV:

Child development in India – Challenges (Childbirth and mortality, preschool years and deficient environment, child labour, declining child sex ratio, child marriage, tribal children, children in difficult circumstances etc)

Profile of the child – Health, nutrition, education, water, environment and sanitation, HIV/AIDS, etc

Child Protection – concept, children in difficult circumstances, child rights, provision for children in constitution of India, laws and legislations, government policies and schemes

Unit V

Family Dynamics: Nuclear and extended families, joint families, single parent households and the role of family in socialization

Research on marital satisfaction, communication patterns, conflict resolution and the impact of divorce and remarriage

Authoritarian, permissive, and neglectful parenting and impact of parenting on child development

Reference

- Bajpai, A. (2003). Child Rights n India: Law, Policies and Practices. Oxford University Press, New Delhi.
- Child Development: The Indian Perspective, Ashok K Srivastava, NCERT
- Anastasi A and Urbina Susana (2002) Psychological Testing, Pearsons Education Asia
- Rao, M. Law Relating To Women and Children. New Delhi.
- Berk, L.E. (1989) Child development Allyn and Bacon Ltd., London.
- Bhatnagar, G.L. (1990) Research methods and measurement in Behavioural & social services, Agri. coll publishing Academy, New Delhi.
- Banclarkar, P.L. and Wilkinson, T.S. (2000): Methodology and Techniques of social research, Himalaya Publishing House, Mumbai.
- Saraswathi, T .S. & Kaur, B. (1993): Human Development and family studies in India, New Delhi Sage Publication.
- Aylward, G. (1994): Practitioners guide to development & psychology testing, New York: Plenum Press.
- Hayes, N (ed.) 1997). Doing qualitative analysis in Psychology Hove: Psychology Press
- Research methodology – Methods & Techniques – C.R. Koltein – Wishwas Prakashan, New Delhi.
- Koradia, K.; Narang, D. & Purohit, S. (2008) Methods of Human Study: Practical Manual, Shivam Book House Pvt. Ltd., Jaipur.
- Gupta M.L. & Sharma, D.D. (2008) S Purvey Methods in Social Investigation 4th ed. Sahitya Bhawan Publication, Agra.

CO1	Define and Describe importance of human development study, psychological tests and their use, child development in India and their protection, family dynamics
CO2	Understand and Interpret importance of human development study, psychological tests and their use, child development in India and their protection, family dynamics

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CO3	Develop an understanding of human development study, psychological tests and their use, child development in India and their protection, family dynamics
CO4	Analyze importance of human development study, psychological tests and their use, child development in India and their protection, family dynamics
CO5	Critically evaluate importance of human development study, psychological tests and their use, child development in India and their protection, family dynamics
CO6	Express views on importance of human development study, psychological tests and their use, child development in India and their protection, family dynamics

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PHOE 104(c): Research Issues in Textile and Clothing
No. of credits 04

Unit I
Eco friendly and bio-degradable textiles

Unit II
Textile conservation - Handloom Weaving and Natural dying and printing

Unit III
Physical and chemical assessment of textile materials

Unit IV
Introduction to Computer Aided (CAD) Textile Designing and Fashion Designing

References:

Billie, J. Colier and Helen H. Epps: Textile Testing and Analysis, Precice Hall, New Jersey
Booth, J.E. : Principles of Textile Testing, Newness Butter Worth, London
John, H. Skinikie – Textile Testing
Shenai V.A. : Ecology and Textile, Sevak Publication
Shenai V.A. : Toxicity of dyes and intermediates
Shenai V.A. : Azo dyes – Facts and figures
Veisinet, D.D. : Computer aided drafting and design, Concept and Application
Aidrich, W.: CAD in clothing and textile
Stone: Sample fashion merchandising, McGraw Publishing house
National Textile Policy, 2000
Subhodh Kumar Aggarwal – Textile Processing and Auxiliaries
Amalsar, D.M. : Handloom weaving
Amalsar, D.M. : Fabric structure and cloth analysis
Aswari, K.T. : Weaving mechanism, Ahmedabad

PHOE 104(d): Research Issues in family Resource Management
No. of credits 04

Unit I
Environmental pollution and community health
Impact of environment on women and children

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Unit II

Consumer issues – Impact of Globalization, Privatisation and Industrialisation on consumer and consumer goods

Unit III

Fuel technologies and use of nonconventional energy resources

Unit IV

Housing Research – Housing needs, status and problems in India, housing schemes

Agencies for housing research and development, methods and techniques

References:

Chandha R : The Emerging consumer

Seetharaman, P and Seth, M.: Consumerism: A Growing Concept.

Pheasant Stephen : Body space, Anthropometry, ergonomics and the design of work

Vegas, Philip and Meanon, Geeta: The impact of Environmental Degradation on people

Trivedy, R. K. and Arvind Kumar: Eco-Technology for pollution control and Environmental management.

Deshpande, R. S: Modern Ideal House for India.

Ambedkar, V. N. & Modak, N. V.: Town and Courtly Planning and Housing

Jain, H. C.: Non-conventional Sources of Energy

CO1	Define and remember environmental pollution and its impact on health, Consumer issues, fuel technology, housing research.
CO2	Understand and describe pollution impact on human health, consumer issues, non-conventional energy resources, research on housing.
CO3	Explain and apply knowledge related to environmental pollution and its impact on health, Consumer issues, fuel technology, housing research.
CO4	Analyze and conclude about pollution impact on human health, consumer issues, non-conventional energy resources, research on housing.
CO5	Evaluate and conclude environmental pollution and its impact on health, Consumer issues, fuel technology, housing research.
CO6	Write about pollution impact on human health, consumer issues, non-conventional energy resources, research on housing.

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