



Avinashilingam Institute for Home Science and Higher Education for Women

(Deemed to be University under Category A by MHRD, Estd. u/s 3 of UGC Act 1956)

Re-accredited with A+ Grade by NAAC. Recognised by UGC Under Section 12 B

Coimbatore - 641 043, Tamil Nadu, India

Department of Resource Management

Ph.D. Resource Management

Ph.D. Programme Specific Outcomes

1. Exhibit efficient resource use potentials in the field of resource management
2. Work with eminent professionals to ensure quality in research and aspire for wider reach
3. Prepare them to tackle issues related to their field of study

Scheme of Instruction and Examination

(Applicable for Ph.D. Scholars admitted from 2020– 2021 & onwards)

Subject Code	Name of Paper / Component	Hours of instruction / week	Scheme Examination				Credits
			Duration of exam	CIA	CE	Total	
20PHRM01	Research Methodology and Statistical Techniques for Resource Management	7	3	60	40	100	5
20PHRM02	Advanced Family Resource Management	7	3	60	40	100	6
	Specialisation Paper		3	60	40	100	5
20PHRP04	Research and Publication Ethics	2	3	100	-	100	2
	Thesis			100	100	200	12
Total Credits							30

20PHRM01 - Research Methodology and Statistical Techniques for Resource Management

Hours of instruction/ week : 7

No. of Credits : 5

Objectives

1. Understand the advances in Research Techniques
2. Learn the steps involved in Research
3. Gain knowledge of statistics in interpretation of results

Unit I: Fundamental Concepts

30

Research problem – Definition, identification – statement of research problems – criteria for selection, research process

Variables – meaning and identification in relation to the research problems – independent, dependent, control and intervening variables

Hypothesis – meaning and importance – types of hypothesis

Research at various levels – agencies of research and their functions

Unit II: Research Tools

20

Sampling and Data Collection

Techniques of sampling

Questionnaire, interview schedule, observation and experimentation

Scaling techniques – different types, nominal, ordinal, interval and ratio – attitude scales – rating scales and check list

Tools for behavioural science – projective techniques and interest inventories, case study

Characteristics of tools – reliability and validity, ethical considerations in data collection.

Unit III: Research design in Resource Management

20

Concept and type of Research design

Design of research on the basis of techniques/ methodology – exploratory and descriptive

Quantitative – field studies

Field experiments and laboratory experiments

Design of research on the basis of area of research –research in social sciences

Tabulation and diagrammatic representation of data's, report writing and presentation

Unit IV: Research Design / proposal

15

Steps in designing – statement of the problem – hypothesis identification of the variables – selection of samples selection of tool – plan of analysis – time, budget, cost, resources, personnel etc

Unit V: Data analysis and interpretation

20

Introduction to SPSS, Bivariate Analysis-Correlation and regression- pearson's product moment correlation co-efficient, Correlation co- efficient by ranks, Bi-serial correlation- Regression lines. Multiple and Partial Correlation concepts only. Normal Probability and its uses parametrictests- Large and Small samples, non — Parametric tests Analysis of variance- one way and two way classifications

Total Number of Hours : 105

Course Outcomes: On completion of the course, students will be able to

- Identify research problems, and research activities carried out at various levels
- Gain thorough knowledge on adoption of suitable research tools
- Design of research on the basis of area of research
- Develop a research proposal on their field of research
- Handle data analysis and interpretation of data effectively

Text Books

- **Panneerselvam.R**, (2014), Research Methodology, II edition, New Delhi: PHI Learning Private Limited, India.
- **Kothari. C.R**, (2004), Research Methodology Methods and Techniques, New Delhi: Wiley Eastern Ltd, India
- **Kumar.R**, (2014), Research Methodology: A Step-by-Step Guide for Beginners, California: Sage Publications, USA.

References

- Wilkinson. T.S and Bhandarkar P.L.CC.(1984), Methodology and Techniques Of Social Research, Himalaya Publishing House, Bombay.
- Devadas, R.T and Kulandaivel.K, (1989), A Handbook of Methodology of Research, SRKMV, Coimbatore
- Sadha. A.N and Singh, (1992), Research Methodology in Social Sciences
- Gupta. S.P, (1993), Statistical Methods, Sultan Chand & Sons, Daryagan, New Delhi

20PHRM02 - Advanced Family Resource Management

Hours of instruction/ week : 7

No. of Credits : 6

Objectives

1. Understand the advancement in the field of Family Resource Management
2. Plan and apply the knowledge gained in the day to day situation
3. Explore and equip the students to conduct research in relevant areas

Unit I: Family Resource Management – Concept of systems Approach 20

Concept of Management, role of motivation in management, Systems approach to Family Resource Management – micro and macro environment

Concept of resources – meaning, characteristics, classification, factors affecting utilization of resources, resource optimization- Human, energy, time and money management, work simplification

Decision making – significance, types, process – input and output relations, relevance of communication in the process

Unit II: Environmental Management of Key Resources 15

Environmental management of key resources- need for sustainable management of key resources – land, water, air, energy management, solid and liquid waste, sustainability and management of key resources, environmental education

Unit III: Human Energy Resources – Concept and Management 25

Equipment for modern living – conventional and modern equipment. Electrical and non-electrical – availability, use and care. Evaluation of equipment. Design development of a simple equipment.

Housing, advance in the area of housing – designs, materials and methods of construction.Space saving and cost effective techniques – prefabrication. Recent trends in interior design materials, finishes and decorations.

Ergonomics – concept of ergonomics – anthropometry, design of work areas, application of ergonomic principles in household work performance – indoor and outdoor

Unit IV: Resource Building – Concept of Consumerism and Entrepreneurship 23

Entrepreneurship – concept – classification – project planning – identification, formulation, project design, network analysis, project finance, project report and appraising – problems of entrepreneurs – SWOT – (Strength, weakness, Opportunity, threat)

Consumerism – problems faced by Indian consumers

Consumer Protection Act – Consumer education, consumer forum and consumer redressal cell

Unit V: Wellbeing of Family as Key Resource

22

Family and the future – family life cycle, changing trends in family life, threats of family living, future scenario of family resources – action plan for strengthening family life style – individual, family and community, managerial problems of young, elderly, handicapped, single parent – female headed families and managerial support needed. Organizations supporting family life education programmes. Research in family Resource Management

Total Number of Hours = 105

Course Outcomes: On completion of the course, students will be able to

- Know the concept of system approach, energy resources and resource recovery and its application in various sectors
- Develop and evaluate simple equipment
- Summarize recent housing scenario, interior design materials in our country
- Evaluate and establish themselves as crucial consumers and trend making entrepreneurs.

Books:

- Robert,N.A., (2007), Accounting, Tata MC Graw-Hill Publishing Company Ltd., New Delhi.
- Kasu,A., (2005), Interior Design, Ashish Book Center, Mumbai.
- Suja, Nair, (2002), Consumer Behaviour, Sultan Chand and Sons, New Delhi.
- Goel,S, (2016), Management of Resources for Sustainable Development, New Delhi: Orient Blackswan Private Limited, India.

References

- Badi,R.V. and Badi.N.V., (2005), Entrepreneurship, Vrinda Publications (P) Ltd., New Delhi Macmillan India Ltd., New Delhi.
- Park, K, (2003), Preventive and Social Medicine, M/S BanarsidasBhanot Publishers, Jabalpur
- Cheri Mendelson, (2005), Home Comforts — The Art and Science of Home Comforts — The Art and Science Of Keeping Home, Scriber Company, New York.
- David Elbot, (1997) Energy Society and Environment and Environment — Technology for a Sustainable Features. London, Routledge Publications.
- Garg, H.P. and Prakash,J., (1997) Solar Energy Fundamentals and Application, Tata mc Graw hill Publishing Company Ltd., New Delhi.
- Golden Berg,J. and Johansson, T.B., (1995), Energy as.an Instrument for Socio-Economic Development, New York, United Nations Development Programme.
- Agarwal,D.K., (2006), Kitchcn Equipment & Design, Aman Publications, New Delhi.

- Wanda.J., (2001), Modern Kitchen Work Book — A Design Guide for Planning a Modern Kitchen, Rockport Publishers Inc., USA.
- Robert, L. and Smith, (2002), Electrical Wiring Industrial : Based on the 2002 National Electrical Code, Delmar / Thomson Learning Publisher.
- Phillips, C.A., (2000), Human Factors Engineering, John Wiley and Sons, Inc., New York.
- ILO, 2001. Introduction to work study, Oxford & IBH Publishing co. Ltd., New Delhi.

ANNEXURE

Course Title:

- **Research and Publication Ethics (RPE)**-Course for awareness about the publication ethics and publication misconducts.

Course Level:

- 2 Credit course (30 hrs.)

Eligibility:

- M.Phil., Ph.D. students and interested faculty members (It will be made available to post graduate students at later date)

Fees:

- As per University Rules

Faculty:

- Interdisciplinary Studies

Qualifications of faculty members of the course:

- Ph.D. in relevant subject areas having more than 10 years' of teaching experience

About the course

Course Code: CPE- RPE

Overview

- This course has total 6 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 databases, open access publications, research metrics (citations, h-index, Impact Factor, etc.) and plagiarism tools will be introduced in this course.

Pedagogy:

- Class room teaching, guest lectures, group discussions, and practical sessions.

Evaluation

- Continuous assessment will be done through tutorials, assignments, quizzes, and group discussions. Weightage will be given for active participation. Final written examination will be conducted at the end of the course.

Course structure

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

Modules	Unit title	Teaching hours
Theory		
RPE 01	Philosophy and Ethics	4
RPE 02	Scientific Conduct	4
RPE 03	Publication Ethics	7
Practice		
RPE 04	Open Access Publishing	4
RPE 05	Publication Misconduct	4
RPE 06	Databases and Research Metrics	7
	Total	30

Syllabus in detail

THEORY

- **RPE 01: PHILOSOPHY AND ETHICS (3 hrs.)**
 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 (5hrs.)**
 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
- **RPE 03: PUBLICATION ETHICS (7 hrs.)**
 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 & self-archiving policies
3. Software tool 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 Discussions (2 hrs.)**

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, SNIP, SJR, IPP, Cite Score
2. Metrics: h-index, g index, i10 index, altmetrics

References

- Bird, A. (2006). *Philosophy of Science*. Routledge.
- MacIntyre, Alasdair (1967) *A Short History of Ethics*. London.
- P. Chaddah, (2018) *Ethics in Competitive Research: Do not get scooped; do not get plagiarized*, ISBN:978-9387480865
- National Academy of Sciences, National Academy of Engineering and Institute of Medicine. (2009). *On Being a Scientist: A Guide to Responsible Conduct in Research: Third Edition*. National Academies Press.
- Resnik, D. B. (2011). What is ethics in research & why is it important. *National Institute of Environmental Health Sciences*, 1–10. Retrieved from <https://www.niehs.nih.gov/research/resources/bioethics/whatis/index.cfm>
- Beall, J. (2012). Predatory publishers are corrupting open access. *Nature*, 489(7415), 179–179. <https://doi.org/10.1038/489179a>
- Indian National Science Academy (INSA), *Ethics in Science Education, Research and Governance*(2019), ISBN:978-81-939482-1-7. http://www.insaindia.res.in/pdf/Ethics_Book.pdf

