

PARUL UNIVERSITY
Ph. D COURSE

Paper-I RESEARCH METHODOLOGY

UNIT 1. Research process- Characteristics and requirements: Types of research

UNIT 2. The Research Phases: Phases- I Formulating a research problem, Phase- II Planning a research problem, Phase- III Conducting a research proposal

UNIT 3. Reviewing the literature: The place of the literature review in research, Clarity and focus to research problem. Improving research methodology, broadening your knowledge base in your research area, enabling you to contextualize your findings. How to review the literature, Searching, reviewing of the literature, Developing a theoretical and conceptual framework

UNIT 4. Formulating a research problem: Source, consideration and step in formulating a research problem. Formulation of research objectives in qualitative research

UNIT 5. Identifying variables: Types of variable and types of Measurement Scale

UNIT 6. Constructing Hypotheses: Definition, function, testing and characteristics of hypothesis. Types of hypothesis

UNIT 7. Conceptualizing a research design: Research design- Function and theory of research design

UNIT 8. Constructing an Instrument for Data Collection: Selection a method of data collection. Collection data using attitudinal scales. Validity and reliability of a research instrument

UNIT 9. Selecting a sample: Concept, sampling terminology, principles of sampling. Factor affecting the interferences. Types of sampling- Non Random, non probability sampling design in quantitative research

UNIT 10. Writing a research proposal: How to write a research proposal. Objectives, Hypotheses, Study design, Setting, Measurement procedures, Ethical issues. Sampling, Analysis of data, Structure of the report and Problems and limitations

UNIT 11. Writing a research report: Writing a research report, developing an outline, writing about a variable. Referencing, writing a bibliography and summary

UNIT 12. Research methodology and practice Evaluation and types of evaluation from a focus perspective. Types of evaluation from a philosophical perspective. Undertaking an evaluation. Ethical in evaluation and summary

Recommended Books:

1. Kothari, C R, Research Methodology.
2. Bhattacharyya, Dipak Kumar, Research Methodology.
3. Parikh, M.N. And Gogtay, N, ABC of Research Methodology and Applied Biostatistics: A Primer for Clinicians and Researchers.
4. Yelikar, Kanan, Essentials of Research Methodology & Dissertation Writing

UGC: D.O.No F.1-1/2018(Journal/CARE), December 2019

Course code: Research and Publication ethics (RPE)

Credit: 2 (30hrs)

Eligibility: M. Phil., PhD students and interested faculty members

Course structure:

Modules	Unit title	Teaching hours
THEORY		
RPE01	Philosophy and Ethics	3
RPE02	Scientific Conduct	5
RPE03	Publication Ethics	7
PRACTICE		
RPE04	Open access publishing	4
RPE05	Publication misconduct	4
RPE06	Database and Research metrics	7
	Total	30

Syllabus in details:

Theory

RPE01: Philosophy and Ethics (3hrs)

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

RPE02: Scientific Conduct (5hrs)

- Ethics with respect to science and research
- Intellectual honesty and research integrity
- Scientific misconducts: falsification, fabrication and plagiarism (FFP)
- Redundant publications: duplicate and over lapping publications, salami slicing
- Selective reporting and misrepresentation of data

RPE03: Publication Ethics (7hrs)

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

Practice

RPE04: Open access publishing (4hrs)

- Open access publications and initiatives
- SHERPA/RoMEO online resource to check publisher copyright and self archiving policies
- Software tool to identify predatory publication developed by SPPU

- Journal finder/journal suggestion tools viz, JANE, Elsevier journal finder, springer journal suggerster, etc.

RPE05: Publication misconduct (4hrs)

A. Group discussions (2hrs)

- Subject specific ethical issues, FFP, authorship
- Conflicts of interest
- Complaints and appeals: examples and fraud from India and aboard.

B. Software tools (2hrs)

- Use of plagiarism software like turnitin, Urkund and other open source software tools

RPE06: Database and Research metrics(7hrs)

A. Database (4hrs)

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

B. Research Metrics (3hrs)

- Impact factor of journal as per journal citation report, SNIP, SJR, IPP, Cite Score
- Metrics: h-index index, i10index, altmetrics.