UNITED UNIVERSITY OF KERALA

Ph.D. Course Work
Syllabi common to Science, Applied Science and Engineering Faculties

PAPER I – RESEARCH METHODOLOGY


Unit-II - Research Formulation – Defining and formulating the research problem - Selecting the problem - Necessity of defining the problem - Importance of literature review in defining a problem – Literature review – Primary and secondary sources – reviews, treatise, monographs-patents – web as a source – searching the web - Critical literature review – Identifying gap areas from literature review - Development of working hypothesis.


Unit-IV - Data Collection and analysis: Execution of the research - Observation and Collection of data - Methods of data collection – Sampling Methods- Data Processing and Analysis strategies - Data Analysis with Statistical Packages - Hypothesis-testing - Generalization and Interpretation.


Unit-VI - Application of results and ethics - Environmental impacts - Ethical issues - ethical committees - Commercialisation – Copyright – royalty - Intellectual property rights and patent law – Trade Related aspects of Intellectual Property Rights – Reproduction of published material – Plagiarism - Citation and acknowledgement - Reproducibility and accountability.
REFERENCES


Additional reading

PAPER I – RESEARCH METHODOLOGY

Unit I - Concept of Research
Meaning and importance of Research – Types of Research – Selection and formulation of Research Problem – Research Design

Unit II - Research Methods
(a) Traditional Methods – Historical, Institutional, Legal, Philosophical, Comparative, Ethical methods etc.
(b) Modern Methods – Survey of Literature, Sampling method, Questionnaire, Schedule etc, Interview method and Focus Group discussion, Observation Method, Case Study method, Content analysis, Delphi method, Statistical Method, Experimental method, Brainstorming Techniques etc.

Unit III - Data Collection and Data Analysis
I. Types of data
(a) Primary, Secondary and Tertiary Data.
(b) Construction and adaptation of instruments, Administration of questions and tests, Tabulation of data.
(c) Data organization in SPSS and Excel
(d) Graphical representation of data

II. Analysis of Data
(a) Discussion and Interpretation of results.
(b) Testing of Hypothesis: Logical and Statistical Techniques.

Unit IV - Report Writing
(a) Organization of the Research Report
    Preliminaries, Contents of Report, Bibliography, Appendices
(b) Style Manuals
(c) Criteria for the evaluation of the Research Report.
References


   b) **Variants in Methodology**:
   - i Folkloristics,
   - ii Linguistics,
   - iii Textual Criticism
   - iv Interdisciplinary studies


4. **Development of Literary Research in Malayalm and its Present Stage**:
   - The beginning of Research - Contribution of early writers in research – Library history and research – Research in University level – an evaluation.
1. Research - Definition, concept, process of research and types of research

2. Research procedure - Selection of topics, types of source materials, hypothesis, data collection, Cataloging, Principles of Data bases

3. Research methods –
   (a) Oral, textual, documentary analysis, questionnaire, interviews, historical data collections.
   (b) Data on traditional singing, Recording & notation of songs of traditional Musicians.
   (c) Manuscripts – published data of manuscripts from various manuscripts libraries, unpublished manuscripts, Collection from private sources, Electronic resources, Reviews, articles and Journals.
   (d) Changes in the modern methods of singing from the traditional way of singing and collection of sample data and comparisons, Evaluation of old and new styles.

4. Structure of the thesis- Introduction, body of the thesis and conclusions - preface, Table of contents, acknowledgement, introduction, division of chapters, sub-chapters, footnotes, End-notes, Quotations, references, analytical study, Bibliography, appendix, Thematic indices.

5. Discographies, Year Books, Directories.
SUBJECT : PHILOSOPHY

Syllabus

Paper I Research methodology

Part A

Unit I


Unit II

Research Methods – (1) Traditional Method, (2) Scientific Method. Research Design, Data Collection, Primary and Secondary Data, Data analysis, editing, coding, classification tabulation, interpretation of data. Observation Method, Personal interview, Mail survey, Questionnaire Design Sampling, Case study Method, laboratory Research.

Unit III

Research in Philosophy. (a) Qualification for research in Philosophy, The Hermeneutic Approach Observational Research – Naturalistic Observation Case Studies, Theory Development and Testing in Observational and Archival Research; Capacity for high degree of generalization language of source and reporting, (b) Kinds of topic for research in philosophy thinker or text based topics, Concept based, Comparative, Meta-philosophical and inter-disciplinary, (c) Nature of
Philosophical Methods and reasoning Speculative, dialectical Analytical/Critical, Phenomenological.

Unit IV

Techniques of Research. (a) Classification of the meaning of the terms-report, project, thesis, dissertation, Monography. Essay, Research article, paper assignment, (b) How to go about choice of topic, Utility of Preliminary Synopsis Collection of Material, Preparation of working bibliography, methods of notemaking, scope of original contribution, (c) Presentation of the research product, (d) chapterisation – (1) Preface, Introduction, Main body, Conclusion, (2) Table of Content, indices, appendices, glossaries, bibliography, (3) Conventions regarding punctuation, annotation, titles, illustration, footnotes references, style of writing.

Unit V


Books

Ph.D Course Work in Hindi

Syllabus

Paper I – Research Methodology

1. What is Research? Words used in Hindi for ‘Research” the meaning and appropriateness. Place of research in human development – use of research.

2. Research and process of thinking

3. Research Culture and Attitude
   The qualities required for a researcher – Quest for truth, keen observation, thinking and argumentation, intellectual, sincerity and objectivity, tolerance, industriousness and sense of duty, prior knowledge of the subject and interest in it – other qualities.

   Qualities to be avoided – Dogmatism, hastiness, subjective thinking and argumentation, obstinacy etc.

4. Types of Research
   Classification of Research activity according to research material, method of working. Aim and logical method.

5. Procedural steps in Research
   Felt need of a problem or complexity in a subject, clear definition of the problem or area and purpose of the work, possible hypothesis, collection of material, taking notes and filing, analyses and evidencing, rejection of unacceptable hypothesis, final confirmed conclusion and presentation.

6. Literary and Linguistics Research
   Types of literary as Linguistic research, purposes and importance of literary as linguistics research, peculiar teachers of literary as linguistic research. Research and criticism.

   Selection of subject, how to select a topic, problems involved in the nature of the subject.

   Working Synopsis, its purpose, importance and nature, collection of material, types of material, primary, supportingsupplementary, marginal and foundation material, field material and textual material problem etc.

Methods of preparing notes – Ledger system, file system, tip-card system. Standard methods of preparing tip-cards and other notes, bibliography cards.

9. **Comparative Literary Research**
   Types of comparative literary research, their purpose and uses, peculiar features of comparative research, problems of comparative research.

10 **Research Report** - Thesis or dissertation: its form and parts, ideal form and defects to be avoided, Presentation – ideal form of presentation and precautionary measures, merits and defects in presentation, language and style to be adopted.

**Reference Books** –

1. Anusandhan Pravidhi: Sidhant aur Prakriya-Dr. S.N. Ganeshan.
2. Shodh Prakriya evam vivaranika – Dr. Sarnam Singh.
3. Anusandhan – Dr. Satyendra.
4. Shodh Pravidi – Dr. Vinayamohan Singh.
5. Sahityik Shodh Ke Sidhant aur Samasyayen.
10. Tulnatmak Anusandhan aur Uski Samsyayen – Dr. Saragu Krishna
SYLLABUS

Paper I Methodology of Research – Arabic

I. Primary Steps of Research: (1) Thesis or Dissertation. (2) Personality of the scholar. (3) Stages of University Learning. (4) Selecting research Topic. (5) General framework for developing proposals (6) writing proposals (7) changing the Topic or modifying its plan, (8) Thesis writing in the University. (9) Selecting guide. (10) Relationship with the guide.


IV. Indices: (1) Indices of Quranic Verses. (2) Hadith. (3) Poetry. (4) Personalities. (5) Sources and References.

V. Research at the Final Stage: (1) Lay out of the Thesis. (2) Printing the thesis. (3) Declaration of Result.


Books for Reference:

SANSKRIT

Syllabus for the course Work for the newly Registered Candidates for Ph.D. in Sanskrit

Paper I – RESEARCH METHODOLOGY


Reference Books:

1. Srimannarayana Murti M - Methodology in Indological Research, Bharatiya Vidya Prekasan Delhi
5. Rajannan, Busnagi - Fundamentals of Research Hyderabad, American Studies Research Centre, 1960
Ph.D. in RUSSIAN

The main goal of this level is to prepare the learner for research programmes leading to a doctoral degree in Russian. In keeping with this goal, the major aims and objectives of the Ph.D. programme would be as under:

1. Consolidating and reinforcing the aims and objectives envisaged at the M.A. and M.Phil. Levels.
2. Introduction to research methodology particular to the area of research.
3. Introduction to techniques of documentation and write-up.
4. Emphasizing different approaches to research: interdisciplinary/comparative.
5. Updating knowledge in areas of research through advanced courses pertinent to those areas.

SYLLABUS; RESEARCH METHODOLOGY – COURSE CONTENT:

1. Scientific Methods of choosing a research problem.
2. Analysing and defining a problem.
3. Methods of data collection
4. Scientific methods of enquiry
5. Making a hypothesis
6. Presentation of the findings
7. Interpretation and Report Writing
8. The Mechanics of Writing
10. Documentation: Preparing the List of Works Cited
11. Documentation: Citing sources in the Text
12. Preparation of dissertation

PRESCRIBED BOOKS

Course description

This paper intends to familiarize researchers with the principles, tools and techniques of research in English studies, to train them in collecting, classifying, organizing and analyzing materials in the writing of their research project; to familiarize them with the conventions governing the written presentation of research; and to train them to apply these conventions in their research work.

Topics for Study:-

1. Steps in research
   - Using the library
   - Collecting materials
   - Preparing a working bibliography
   - Evaluating sources
   - Taking notes
   - Avoiding plagiarism

2. The Art of Argumentation
   - Phrasing the proposition
   - Finding the issues
   - Framing the brief
   - Methods of Reasoning
   - Refuting opponents

3. Writing Drafts
   - Nature and Scope
   - Formal structure
   - Focus and emphasis
   - Style and Tone
   - Words and sentences
   - Paragraphs and chapters

4. The Mechanics of Writing
   - Parts of the dissertation
   - Abbreviations
   - Spelling and punctuation
   - Capitalization, underlining and italics
   - Quotations
   - Documentation
   - Bibliographies
Required Reading:-

1. Richard Altick: The Art of Literary Research
3. MLA Handbook for Writers of Research Papers. 7th Edition

Recommended Reading:-

1. Kate R. Turabian: A Manual for Writers of Term Papers, Theses and Dissertations
2. Alaine Hamilton: Writing Dissertations
3. Ann Hoffman: Research for Writers
4. George Thompson: Writing a Long Thesis
5. James Thorpe; ed.: The Aims and Methods of Scholarship in Modern Language and Literature, 2nd edition

DEPARTMENT OF LINGUISTICS

RESEARCH METHODOLOGY

1. Purpose and objectives of research: Abilities of research workers – evaluation of earlier works identification of the research problem.

   Setting up of hypotheses: Nature of role of hypotheses in scientific investigations – types, sources and characteristics of hypotheses.


4. Techniques of presentation: Preparation of thesis monographs, research papers overviews and review style and presentation outline, and body of the chapters, diagrams, graphs, tables and charts – footnotes symbols abbreviations, ellipses, bibliography, appendix and index. Preparation of drafts and final versions of the dissertation – typing printing and submission.