# Savitribai Phule Pune University

(Formerly University of Pune)

# Syllabus for Ph.D. (PET) Entrance Exam Lifelong Learning & Extension Research Methodology

## **Unit 1: Foundations of Research**

Meaning of Research, motivation for research, objectives of research Characteristics of scientific method, empiricism, value neutrality, Repeatability verifiability Approaches to research: positivistic and interpretive, qualitative and quantitative, inductive and deductive and mix-method approach, Feminist approach, Social Research – time and space context

Epistemological, ontological positions, Critical Research

# Unit 2: Basic terms and types of research

Theory, concept, construct, fact,

independent and dependent variables,

Methodology, method, tool and technique

Types of research- Exploratory, descriptive, analytical/explanatory, experimental, evaluation and impact assessment, interdisciplinary, multidisciplinary, trans-disciplinary, Basic Research, Applied Research, Action research, participatory research

# Unit 3: Research Design

Research design- concept and definition, need, advantages of planning a research, characteristics of good research design, Steps in research design; Identification, Selection and Formulation of problem, Literature Review, Primary and secondary data, sources of data- authenticity, credibility, reliability of sources and data

# Unit 4: Sample and sampling designs

Concept of population, sample, sampling frame, sampling unit

Need and advantages of sample study, Characteristics of representative sample, sampling error,

Concept of probability and non-probability sampling

Types of probability sampling- simple random sampling, systematic random sampling, proportionate and disproportionate stratifies random sampling

Types of non-probability sampling- purposive, snowball

### Unit 5: Methods of research

Sample Survey, Case-study, life-history / oral history, ethnography, historical, Interview, discourse analysis, content analysis

### Unit 6: Tools of data collection

Questionnaire, Interview Schedule, Observation and types of observation, Focused Group Discussion, Scales and scaling techniques, Interview Guide, Field Diary, Thick Description

### **Unit 7: Statistics in Social Sciences**

Types of measurement: Nominal, Ordinal and Scale Basic statistical techniques: aggregation of data, totals, percentages, tabulation – univariate, cross tabulation- bivariate and multivariate Data Presentation- Charts and Graphs: Bar charts, Histograms, Clustered bar charts, clustered histogram, pie chart, Pyramid Statistical packages: SPSS, SAS, Statistica, R, PSPP Qualitative Data Analysissoftwares- N-Vivo

### Unit 8: Research Ethics

Research Ethics, History of research ethics.

Introduction to ethical principles - What is morality?, What is ethics?, What is ethical theory?, Anonymity, Confidentiality, Informed consent, Rights of participants, Harm to respondents and Researchers, Principles of biomedical and social science ethics, Ethical Guideline in Social Research

### **Unit 9: Presenting and Writing of Research**

Reviewing sources of Scholarly discourse, books, journals, monographs, proceedings, encyclopaedias, databases online and print, Indexing databases, reviewing bibliographic databases

Major steps in doing research- .Understanding the logic of developing arguments and counter arguments note making, writing responses, making an effective presentation, writing descriptions, analysis and conceptual analysis

# **Unit 10: Referencing and Citations**

Research referencing: Why – due credit to researchers, track back original research, its data, and sources etc., to avoid plagiarism

Referencing and Citations: What is Citation? Citation styles, its basic components (Authors or editors, Book, journals etc, year and month of publication, page numbers, volume and issue etc)

Differences in Citations of: Journal Articles, Authored books, Edited books, conference proceedings, posters, other media such as newspapers and magazines, electronic media such as websites and blogs, social media, photographs, videos and audio recordings, Legal proceedings, Reports of various agencies etc.

# Subject Concerned Syllabus Lifelong Learning & Extension

# **Unit 1 : Concepts and Terminologies**

- 1. Andragogy and pedagogy
- 2. Literacy and its types traditional, functional, mass, legal, technological
- 3. Adult education, adult learning, continuing education
- 4. Lifelong learning
- 5. Development concept, meaning and its indicators, population education, social justice with respect to quality of life
- 6. Extension education, field outreach, community participation: Meaning and Importance, approaches to enlist Community participation, organizational base for community participation.
- 7. Formal education, non-formal education, informal education, incidental learning

# Unit 2 : (A) Theory of Lifelong Learning

- 1. Social Learning
- 2. Action Learning
- 3. Cognitive Learning
- 4. Experiential Learning
- 5. Non formal, formal education and Informal education

# (B) Methods, Tools, techniques and learning material for lifelong learning

- 1. Skills, values, attitudes and knowledge in the curriculum
- 2. Different instructional models/ methods
- 3. learning materials for adults
- 4. Teaching aids conventional, non-conventional, modern
- 5. Socialization and popular education as learning tools / strategies
- 6. The skill based curriculum

# Unit 3 : Higher education and lifelong learning

- 1. Strategies for bringing extension, as the third dimension of higher education system.
- 2. Models for extension work monitoring, evaluation and the award of an academic credit for the extension work in the postgraduate departments and in the colleges
- 3. Design, type, methods and implementation of extension projects,
- 4. Impact of globalization and liberalization on lifelong learning, characteristics/indicator of LLL
- 5. Open learning systems Open University, extension and lifelong learning

### Unit 4: Extension in Higher Education:

- 1. Concept of Extension
- 2. UGC policies regarding Extension
- 3. Features of Extension Programmes
- 4. Nature of Extension Programmes
- 5. Universities extension programmes & Activities
- 6. Extension in Higher Education
- 7. Subject oriented extension Programmes
- 8. Extension education & learning Society
- 9. Collaboration & Networking in Exension
- 10. Feedback, evaluation of Extension work
- 11. Education policies, reports & Extension.

### **Unit 5: Extension Education Theories**

- 1. Social Cognitive theory
- 2. Stages of change or Readiness for change
- 3. Adult Education & Youth Education
- 4. Empowerment
- 5. Evaluation

### **Unit 6: Research Design**

- 1. Descriptive research
- 2. Exploratory research
- 3. Experimental research
- 4. Field research
- 5. Evaluation research
- 6. Archival research

### Unit 7: a) Methods, Tools and Techniques

- 1. Action research concept and methods
- 2. Methods of research; qualitative & quantitative
- 3. Participatory research techniques
- 4. Preparation of research proposal/outline
- 5. Methods of data collection, interpretation
- 6. Programme evaluation techniques concurrent, summative formative
- 7. The research report

### b) Sampling and sampling methods

- 1. Sample and population, parameters and statistics.
- 2. Variables and attributes; sampling and non-sampling errors;
- 3. Types of sampling

### **Unit 8: Measurement and Statistical Techniques**

- 1. Measurement:nominal, ordinal, interval and ratio.
- 2. Collection, organization and presentation of data.
- 3. Measures of central tendency and dispersion-mean median, mode, standard deviation, variance, covariance and correlation coefficients.
- 4. Correlation and regression analysis.
- 5. Probability, distribution, events spaces.
- 6. Joint, marginal and conditional probability under conditions of certainty and uncertainty.
- 7. Random variable: expectation and distribution.
- 8. Addition and multiplication theorems.
- 9. Probability distribution, discrete and continues and expected values.
- 10. Normal t-test, chi-square, t-test.
- 11. Types of estimators and their properties.
- 12. Sampling distribution for sample mean and proportion.
- 13. Point and Interval estimation.
- 14. Null and alternate hypothesis.
- 15. Level of significance and level of confidence, confidence limits and critical region;
- 16. Tests of significance Type I and II errors.
- 17. Statistical package for social sciences (SPSS), Computing Tools & Techniques.