



Guru Gobind Singh Indraprastha University
Kashmere Gate, Delhi-110403

The Examination Scheme for Ph.D. Courses in both semesters will be of 3 hours duration and the examination will be held on the following guidelines:

1a. Maximum marks : 100

1b. Mid semester Examination will of 30 Marks and will be held after 7th week

1c. End term semester examination will be of 70 Marks to be held after 15th week

Mid semester Examination:- after 7th week

End Term Examination:-

1. Question paper shall be of 3 hours duration.
2. Eight questions in all will be set in each paper covering entire syllabus. The student will be required to attempt five questions in all.
3. Question no. 1 will be compulsory and would be of 30 marks. It may contain objective/short question answer having several sub parts and would cover entire syllabus of the course.
4. All other questions shall carry 10 marks each, they may be essay type/short answers and may contain several sub units.
5. If there are units in the paper, the student will have to attempt at least one question from each unit.

75% attendance is compulsory for the course work.

(Prof. A.K.Narula)
Director R&C

RESEARCH METHODOLOGY - I

Course Code: 902001

L,T -3,0 Credit-3

MODULE – A

- 1. Scientific Research-** Meaning and characteristics of scientific research, Validity in research, Phases or stages in research
Various Types of research Qualitative, Quantitative, Experimental, Exploratory , Empirical, , Descriptive, Ex-post facto, Case studies, Historical studies, Philosophical studies, Quasi-experimental.
Ethical Problems in research.
Single- Subject Experimental Research- Meaning and origin of Single-Subject experimental research, Procedures and Designs.
- 2. Nature of Constructs and Variables and Review of Literature**
Nature of Constructs and Variables- Concepts of constructs, Types of variables: Continuous and categorical. **Constructs**, observables, and intervening variables,
Reviewing of Literature- Purpose of the review, sources of the review, preparation of index card for reviewing and abstracting.
- 3. Problem Identification and Formation of Hypothesis**
The Problem- Meaning and characteristics of a problem, Types of Problem, Generality and specificity of problems.
Hypothesis- Meaning and characteristics of a good hypothesis, formulating a hypothesis, Ways of stating a hypothesis, Types of Hypothesis,
Testing Experimental Hypothesis- The general nature of standard error, Test of Significance, Level of significance, degrees of freedom, Errors in Hypothesis- Type I, Type II errors.
- 4. Sampling-** Meaning and Types of Sampling- Probability and Non probability Sampling. Methods of drawing random samples, Requisites of good sampling method, Sample size, Sampling error.
- 5. Research Design-** Meaning and purpose of research design, Criteria of research design, Basic principles of experimental design.

Types of Designs-
 - a) Factorial Experiments: Two factor ($p \times q$) experiment, Three factors ($p \times q \times r$), complete factorial experiment, three factor nested designs.
 - b) Latin Square Designs- Latin square design, latin square design with one observation each cell, latin square design with n observations each cell.
 - c) Cross-over and Greco Latin Square Designs
 - d) Two factor and three factor experiments with repeated measures
 - e) Multi-group correlated- group designs

MODULE B

- 1. Principles of Measurement-** Scales of Measurement (Nominal scales, Ordinal scales, Interval scales, Ratio scales), Types of Scales (Likert scale, Guttman scale, Thurston scale).
- 2. Test Construction-** Meaning of Tests in Research, Classifications of tests, Characteristics of a good test, General steps of test construction. Item Writing- Meaning and Types of Item, General guidelines for item writing, General methods of scoring objective tests items. Item Analysis- Meaning and purpose of item analysis, Index of discrimination, Effectiveness of distracters or foils (Distractor Analysis), Factors influencing index of difficulty and index of discrimination, The item characteristic curve (ICC)

- 3. Reliability-** Meaning and Concept of Reliability,

Methods (or Types) of reliability- Test- Retest reliability estimates, Parallel-forms and Alternate- Form reliability estimates, Split- Half reliability estimates- the spearman brown formula, cronbach alpha, Measures of Inter scorer reliability- the Kappa statistic
Using and interpreting a coefficient of reliability, satisfactory size of reliability coefficients,

- 4. Validity-** Meaning and concept of validity,
Types of Validity- Content Validity- the quantification of content validity
Criterion- Related Validity, Concurrent Validity, Predictive validity-the validity coefficient, incremental validity, expectancy data, decision theory and test utility, Construct Validity. Statistical methods for calculating validity.

Recommended Bibliography:

1. Kothari, C.R. (2006), Research Methodology, New Age International Publishers, 2nd Edition.
2. Donald Cooper and Pamela Schindler (2006), Business Research Methods, TMGH, 9th Edition.
3. Anastasi, Anne et al. (1997), Psychological Testing, Prentice Hall, 7th Edition
4. Black, Ken (2007), Business Statistics, Wiley Black, Ken, Business Statistics: For Contemporary Decision Making, Wiley 5th Edition.
5. Malhotra, Naresh K. (2004), Marketing Research, Pearson Education Pvt Ltd, 4th Edition.
6. Zikmund, William G. (2006), Business Research Methods, Thomson, 7th Edition.
7. Broota, K. D. (2003), Experimental Designs in Behavioral Research, New Age International.
8. Singh, A. K. (2009), Tests Measurements and Research Methods in Behaviour Sciences, Bharti Bhavan.

RESEARCH METHODOLOGY – I

Course Code: 910001

L,T: 2,1 Total Credits: 3

Objective: To initiate students into theoretical and practical nuances of research and documentation in the field of Humanities, Social Sciences and Education.

Unit I Scientific Approach to Research

Definitions, Scientific inquiry: role of assumption, positivist and non-positivist paradigms. and approaches in research; Characteristics of research. Applications; Modes of Enquiry.

Unit II Research Process:

Formulating Research Problems; Reviewing Literature; Identifying Variables; Constructing Hypothesis; Data Collection and Processing; Ethical Issues

Unit III

Methods and Types of Research

Qualitative and Quantitative research .

Fundamental research, applied research, normative survey, literature survey, evaluative, historical, developmental, case study, documentary, action research.

Use of technology in conducting research.

Unit IV Assignments:

Review of Literature on given research domain/problem; Use of Library Resources; Preparation of Bibliography/References; Submission of Research Proposals; Writing Research Papers/Articles. Presentation of Research/Seminar Paper.

Recommended Bibliography:

1. Ranjit Kumar (2006), *Research Methodology*, Delhi: Pearson Education.
2. Joseph Gibaldi (1999 /5th edition), *MLA Handbook for Writers of Research Papers*, New Delhi: Affiliated East West Press.
3. Norman Fairclough (2003/2007), *Analysing Discourse: Textual Analysis for Social Research*, London: Routledge.
4. Best,John.W. and Kahn James.V(2008),*Research in Education*, Delhi:Pearson Education
5. Kerlinger,F.N.(1986/3rd Edition)) *Foundations of Behavioural Research*.New York:Holt,Rinehart,and Winston.

LEGAL RESEARCH AND METHODOLOGY –I

Course Code : 911001

L,T – 3,0

Credit-03

Objective of the course:

The course on legal research and methodology spread in two parts intends to encourage the student to develop skills in legal research by using modern techniques and tools and to be able to produce a high quality of legal research. In the present age of technological advancement due to internationalization and globalization new areas are emerging for original legal research. In the Indian social context excellent socio-legal research on socially relevant areas are very scant. The purpose of this course is to give an opportunity to the students to learn the contemporary methods of legal research and make an attempt to engage in serious legal research.

UNIT- I Research Methods

- (i) Socio-Legal Research
- (ii) Doctrinal and Non-Doctrinal Research
- (iii) Empirical Research and its Relevance

UNIT – II Identification of the Problem of Research-I

- (i) What is a Research Problem
- (ii) Survey of Related Literature
- (iii) Legislative Materials, Notifications, Policy Statements etc

UNIT –III Identification of the problem of Research –II

- (i) Decisional Materials including Foreign Decisions
- (ii) Juristic Writings
- (iii) Compilation of the List of Reports or Special Studies Conducted Relevant to the Problem

UNIT –IV Processing the Plan of research

- (i) Hypothesis
- (ii) Use of Questionnaire and Interview
- (iii) Use of Internet

Recommended Bibliography:

1. S.K.Verma and M. Afzal Wani (ed) Legal Research and Methodology , ILI publication (2001)
2. Baxi, Upendra, Socio-Legal Research in India, ICSSR Occasional Monograph 1975
3. Cohen L Morris, Legal Research in Nutshell (1996) Minnesota West Publishing Co.
4. Grade J Williams and Hatt K Paul , Methods in Social Research, Mc Gaw-Hill Book Company, London-Singapore (1985) reprint
5. Johari J.C. (ed) Methods in Social Research , Sterling, New Delhi, (1988)
6. Ghosh B.N. Scientific Methods and Social Research, Sterling New Delhi (1984)
7. Kothari C.K, Research Methodology: Methods and Techniques, Wilsey Eastern Limited, New Delhi (1980)

PHILOSOPHY OF MANAGEMENT

Course Code :902003

L,T – 2,0 Credits :02

Objective: The course will be an introduction to the way in which a firm can develop its managerial thinking, mission and strategy. It will enable students to evaluate and analyse a firm's management philosophy, to understand the impact this philosophy has on the organization and operation of business and to understand how and why the thinking of some of the key western philosophical thinkers are relevant to the management.

Unit 1

Introduction: Meaning and Nature of Management, Evolution of management thought (Overview of Indian and Western perspective): Contribution of experts and behavioural scientists in management thought (Robert Owen, Charles Babbage, Fayol, Urwick, Weber, Parker Follett, C.Barnard Kautilya and Thinkers from Mughal Administration) Principles of management enshrined in Bhagwad Gita.

Unit 2

Neo Classical Approach to management thought: Decision making with special reference to H. Simon, communication and control, Maslow and Herzberg approaches, Management by objectives (MBO), and Organizational behavioral approach (Chester Barnard), Blake & Mouton and Hersey Blanchard.

Unit 3

Modern Approach to management thought: Management science approach, Systems approach and Contingency approach, Quality & Excellence Movements.

Recommended Bibliography:

1. Wren, Daniel A. (1994), Evolution of Management,,: McGraw Hill, New York, 4th Edition.
2. Stoner, Freeman, Gilbert Jr (2004), Management, Pearson, New Delhi, 6th Edition.
3. Ouchis Z Theory, Mc kinseys 7's, Peter Waterman's seach of Excellence six sigma.
4. Singh, R.N. (2002), Management Thought and Thinkers, Sultan Chand & Sons, New Delhi, 2nd Edition.

PHILOSOPHY OF SCIENCE & TECHNOLOGY

Course Code: **910003**

L,T – 2,0 Credits - 2

Objective: To examine the interrelationship between science and philosophy so as to emphasize on and explore the epistemological, discursive and metaphysical domain of science and technology.

Unit I

History of Science and Technology:

Greek Age, Medieval Period, Renaissance, The Age of Reason, Modern Age and Contemporary Period.

Unit II

Evolution of Scientific & Technological Thought

Brief historical introduction focusing on key thinkers and their key ideas with special focus on Francis Bacon, David Hume, Immanuel Kant, John Herschel, Karl Popper and Thomas Kuhn

Unit III

Understanding Philosophy of Science

The relationship between Science and Philosophy; Scientific Questions and Questions about Science; Modern Science as Philosophy; Science as Epistemology and Metaphysics.

Unit IV

The Scientific Method

Induction and Inductivism, Falsificationism, Revolutions and Rationality, Scientific realism, Underdetermination; Explanation and Inference; Theory Change.

Recommended Bibliography:

1. Ladyman, James (2002) *Understanding Philosophy of Science*, London/New York: Routledge.
2. Rosenberg, Alex (2001) *Philosophy of Science: A Contemporary Introduction*, London/New York: Routledge.

PHILOSOPHY OF LAW

Course Code: 911003

L,T- 2,0 Credit-02

Objective of the Course: The objective of this course is to familiarize the student to the critical issues relating to law, justice and morality. Questions that we will address include: What is a law? Why are we obligated to obey the law? Is law essentially tied to morality, or are morality and law independent? What are the dominant theories of justice? What is liberty? Are liberty and equality compatible ideas? An attempt should be made to apply your understanding of critical issues of jurisprudence to the Indian situation.

Unit – I LEGAL POSITIVISM

- 1 Command Theory: John Austin
2. The Pure Theory of Law: Hans Kelsen
3. Law as a Union of Primary and Secondary Rules: H.L.A. Hart

Unit – II SOCIOLOGICAL APPROACH

1. Interest Theory: Rudolf von Ihering
2. Sociological Theory of Eugen Ehrlich
3. Theory of Social Engineering: Roscoe Pound

Unit – III LAW AND MORALITY

1. Can law be separated from morality?
2. Hart-Dworkin debate on Law and Morality
3. Enforcement of Morality: Issues of Suicide, Homosexuality, and Euthanasia

Unit – IV THEORIES OF JUSTICE

1. Utilitarian Theory of justice : Jeremy Bentham
2. Contractarian Theory of Justice : John Rawls
3. The Idea of Justice : Amaratya Sen

Recommended Bibliography:

1. R.W.M Dias, Jurisprudence (paper back 1994)
2. *Philosophical Problems in the Law* (Second Edition) David Adams (Wadsworth, 1996)
3. H.L.A Hart, *The Concept of Law*, 2nd ed. (Oxford: Clarendon Press, 1994)
4. Dennis Lloyd, *Introduction to Jurisprudence* (paper back 2001)
5. John Rawls , *A Theory of Justice* (1972)
6. Amaratya Sen, *The Idea of Justice* (2009)
7. H.L.A Hart *Positivism and Separation of Law and Morals*, 71, *Harvard Law Review* (1958) p.593
8. Julius Stone, *Province and Function of Law*
9. N.E. Simmonds, *Central Issues of Jurisprudence* (1986)
10. Upendra Baxi, *Towards a Sociology of Indian Law* (1986)

RESEARCH ETHICS AND TECHNICAL WRITING

Paper Code: 910005

L,T – 2,0 Credit

Objectives: (A) To provide researchers with an overview of current and emerging ethical issues with special emphasis on cross-disciplinary issues involving research integrity, ethics and social accountability.
(B) To help students understand the purpose and process of technical and research writing and documentation.

Unit I Research Ethics

Introduction to Moral theory; Data “Ownership” and Stewardship; Conflict of Interest, and Collaboration; Honesty, Candor, Compromise, and Integrity; Research Regulation; Self-Regulation; Research Ethics; Authorship; Plagiarism; Data Fabrication; Peer Review.

Unit II Responsibilities to Society, Science, and Self:

Non-Human Animal Subjects; Human Subjects; Research and Researchers in Society; Mentor/Trainee Responsibilities; Conflict of Interest & Commitment.

Unit III Technical Writing

Introduction to writing in the Sciences and the Challenges of Scientific Writing; Grammar and Punctuation Review; Writing Effective Proposals (includes finding and assembling evidence); Use of Appropriate Formats for Resumes, Letters, Memos, Reports, Proposals, Instructions, etc.; Processes for Developing Written Communication

Unit IV

Project and Report Writing, Writing Research Papers

Recommended Bibliography:

1. Penslar, Robin L. ed. (1995), *Research Ethics. Cases and Materials*, Bloomington, Indiana: University of Indiana Press.
2. Alley, Michael (1996), *The Craft of Scientific Writing*, Third Edition

Reference sites:

1. [Academic Fraud and the Honor System](#)
2. [On Being A Scientist: Responsible Conduct in Research Bioethics Resources on the Web](#) - National Institutes of Health
3. [Resources for Teaching Research Ethics](#) - Research Ethics Program University of California, San Diego

RESEARCH METHODOLOGY II

Course Code: 902002

L,T-2,0 Credit-2

1. **Descriptive Statistics:** Tabulation, organization and graphical representation of quantitative data- Line graphs, Bar graphs, pie charts, histograms, Measures of central tendencies: Mean, Median and Mode, Probability (Concept, theories, conditional Probability)
2. **Measures of Variability:** Range, Quartile Deviation; Standard Deviation; Average Deviation; and Coefficient of Variation, Measures of Relative Position: Percentiles, Percentile Ranks, Standards Scores, Stanine Scores, T- Scores, Normal Probability Distribution, properties of normal curve, applications of normal curve, Divergence from Normality : Skewness and Kurtosis.
3. **Correlation and Regression:** Karl Pearson's Product Moment Correlation Coefficient r , Spearman's Rank order correlation coefficient (ρ), Biserial, Point biserial, Tetrachoric and Phi-Coefficient, Partial and Multiple Correlation, Scatter diagrams, Regression and Prediction, Regression equations, liner regression, multiple regression analysis, path analysis, trend analysis.
4. **Statistical Inference:** Concept of Standard Error and its uses, The Significance of Statistical Measures, Tests of the Significance of difference between two means Z-Test, T-Test, Analysis of variance and Analysis of covariance: Assumptions of Anova, One way Anova, Two way Anova ,Post Hoc tests- Duncan's multiple range test, Tukey's Test, Newmann-Keuls Test. Non-parametric Tests: Chi-square test, Medium test, Mann Whitney U test, Kolmogorov- Smirnov two sample test. **Multivariate Analysis:** Factor Analysis, Cluster Analysis, and Discriminant Analysis
The application of these test should also be learned through using statistical software like SPSS, SysStat etc.

Recommended Bibliography:

1. Black, Ken (2007), Business Statistics: For Contemporary Decision Making, Wiley, 5th Edition.
2. Broota, K. D. (2003), Experimental Designs in Behavioral Research, New Age International.
3. Singh, A. K. (2009), Tests Measurements and Research Methods in Behaviour Sciences, Bharti Bhavan.
4. Cohen, etal. (1988), Psychological Testing & Assessment: An Introduction to Tests & Measurements, Mayfield Publishing Co. California.
5. Garret, F and Scheneck, M. R. (1933), Psychological Tests Methods & Results, New York: Harper & Brothers.
6. Garrett, H.E. (1973), Statistics in Psychology and Education, Vakils, Feffer and Simons. Pvt. Ltd., Bombay.
7. Guilford, J. P. and Fruchter, Benjamin (1973), Fundamental Statistics in Psychology and Education, McGraw-Hill, New York.

RESEARCH METHODOLOGY – II

Course Code: 910002

L,T – 1,1 Credits: 2

Objective: To initiate students into theoretical and practical nuances of research and documentation in the field of English Literature and Education.

Unit I Data Collection Techniques

Sources of data: primary sources and secondary sources (interdisciplinary approach) Techniques and tools of data collection: observation, interview, questionnaire, literature survey, scale, inventory, checklist, content analysis, reliability and validity of tools.

Unit II Data Analysis and Sampling Techniques

Concept, need, probability and non-probability samples, sampling errors and their control. Data Analysis: T-list, Correlations, ANOVA, Regression

Unit III Documentation

Writing Research Proposal; Writing Research Report/Thesis and Research Paper: Developing the Thesis; Formatting, Inside Citations, References, Bibliography.

Unit IV Assignments & Seminars:

Assignments Testing Research Methodology Awareness and Seminar in Research Projects/ Thesis

Recommended Bibliography:

1. Ranjit Kumar (2006), *Research Methodology*, Delhi:Pearson Education.
2. Joseph Gibaldi (1999 /5th edition), *MLA Handbook for Writers of Research Papers*, New Delhi: Affiliated East West Press.
3. Norman Fairclough (2003/2007), *Analysing Discourse: Textual Analysis for Social Research*, London: Routledge.
4. Best,John.W. and Kahn James.V(2008),*Research in Education*, Delhi:Pearson Education
5. Kerlinger,F.N.(1986/3rd Edition)) *Foundations of Behavioural Research*.New York:Holt,Rinehart,and Winston.

LEGAL RESEARCH AND METHODOLOGY –II

Course Code: 911002

L,T-2,0 Credit-02

UNIT –I

Preparation of Research Design

- (i) Formulation of Research Problem
- (ii) Hypothesis and Research Design
- (iii) Devising Tools and Techniques for Collection of Data

UNIT –II

Techniques of Research-I

- (i) Methods for Collection of Statutory and Case Material
- (ii) Use of Historical and Comparative Research Material
- (iii) Use of Observation Studies

UNIT –III

Techniques of Research –II

- (i) Use of Questionnaire/Interview
- (ii) Use of Case Studies
- (iii) Sampling Procedures-Design of Sample, Type of Samples to be adopted

UNIT –IV

Analysis of Data

- (i) Data Collection
- (ii) Interpretation of Data
- (iii) Preparation of Research Report

Recommended Bibliography:

1. S.K.Verma and M. Afzal Wani (ed) Legal Research and Methodology, ILI publication (2001)
2. Baxi, Upendra, Socio-Legal Research in India, ICSSR Occasional Monograph 1975
3. Cohen L Morris, Legal Research in Nutshell (1996) Minnesota West Publishing Co.
4. Grade J Williams and Hatt K Paul , Methods in Social Research , Mc Gaw-Hill Book Company, London-Singapore (1985) reprint
5. Johari J.C. (ed) Methods in Social Research , Sterling, New Delhi, (1988)
6. Ghosh B.N. Scientific Methods and Social Research, Sterling New Delhi (1984)
7. Kothari C.K, Research Methodology: Methods and Techniques, Wilsey Eastern Limited, New Delhi (1980)

INTELLECTUAL PROPERTY RIGHTS

Course Code: 911004

L,T-2,0 Credit-02

Unit-I: Introduction

- What is Intellectual Property Law. Type of Intellectual Properties
- Nature of Intellectual Property Law
- Economic importance of Intellectual Property Law

II: Law of Copyright

- (i) Basic Principles
 - Meaning of Copyright
 - Relationship with other Intellectual Property Rights
 - Economic Importance
 - Subject matter of copyright
 - Duration of copyright and transmission
 - Authorship and ownership of copyright
 - Transfer and licensing of copyright
 - Administrative bodies
- (ii) Moral Rights and Related Rights
 - Right to be identified as the author of work
 - Right to object to derogatory treatment of work
 - Joint Works
 - Rights of Performance
- (iii) Rights, Infringement and Remedies
 - Rights of copyright owners
 - The acts restricted by copyright
 - Infringement/Criminal Offence
 - Remedies for Infringement of Copyright
- (iv) Defences to Copyright Infringement
 - Public Interest
 - Fair Dealing
 - Education/Statutory Licenses
- (v) New Technology and Copyright
 - Copyright Protection for Computer Program
 - Copyright and Internet
- (vi) International Aspects of Copyright
 - Berne Copyright Convention
 - Universal Copyright Convention
 - WTO, TRIPS and Copyright

Unit – II

III. Patent Law

- Justification of Patent Rights
- Requirements for Patentability
- Ownership, Duration of Patents
- Infringement, Defenses and Remedies
- International Treaties
- WTO, TRIPS and Public Health

Unit – III

- Registerable Trade Marks and Registration
- Trademark as Property
- Classification and Collective Marks
- Rights, Infringement, Defenses and Remedies
- International Aspects of Trademarks
- Passing off: Basic Requirements
- Protection of Geographical Names and Goods (Geographical Indication)

Unit – IV

Design Law

- Registered Designs, Design Rights, Registration and Infringement
- Duration, ownership
- Traditional Knowledge and Protection of Plant Varieties and Farmer Rights

Recommended Bibliography:

1. Paris Convention for the Protection of Industrial Property, 1883;
2. Berne Convention for the Protection of Literary and Artistic Works, 1886;
3. Agreement on Trade-Related Aspects of Intellectual Property Rights, 1994 (the TRIPS Agreement);
4. Indian Copyright Act, 1957;
5. Indian Patents Act, 1970;
6. Indian Trademarks Act, 1999;
7. Indian Designs Act, 2000.