



UNIVERSITY OF MADRAS
(Established under the Act of Incorporation XXVII of 1857 – Madras
University Act 1923)
(State University)



University Centenary Building, Chepauk, Chennai - 600 005, Tamil
Nadu, INDIA.

Ref. No. : Ph.D Registration Section / 2020/ 2020

Dated : 14 DEC 2020

From
The Registrar i/c,
University of Madras,
Chepauk, Chennai- 600 005.

- To
1. The Controller of Examinations
 2. All Campus Directors in Various Campuses
 3. All HOD's / Directors
 4. The Secretary to Vice Chancellor
 5. The Senior PA to Registrar
 6. The Director Network Operations.
 7. All College Principals / Directors of Research Institutions

Sir/Madam,

Sub: Circular regarding implementation of two credit course for awareness about publications Ethics and publication misconducts entitled "Research and publication Ethics (RPE) - Regarding

It is informed that the University Grants Commission recommended a two credit course entitled "Research and publication Ethics" as a part of course work for Ph.D Students.

Recommended by University Board of Research Studies, the Syndicate (14/02/2020) and Academic Council (29/02/2020) passed the Syllabus. The Syllabus was also presented in Senate on May 2020.

Now, it is hereby informed all Ph.D Students admitted from July 2020 session should complete this course within one year.

The Ph.D Students without M.Phil, the course work shall have four papers including "Research and publication Ethics", for Ph.D Students who have been exempted from course work, because they completed M.Phil, should write this paper "Research and publication Ethics". The M.Phil candidates those who had registered on inter-disciplinary mode should write three papers including "Research and publication Ethics" within one year of admission in Ph.D Programme.

Registration for Ph.D Programme shall be conformed only after the passing course including Research and publication Ethics.

The syllabus and guidelines are uploaded herewith.

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Yours faithfully,

REGISTRAR i/c
10/2/2020

UNIVERSITY OF MADRAS

Guidelines for two Credit Courses

- (1) The written examination for the theory components of the course 'Research And Publication Ethics' shall be conducted by the Department/Colleges/Research Institutions for 50 marks.
- (2) The examinations for the Practical component of the course 'Research and Publication Ethics' shall be conducted by the Department/Colleges/Research Institutions for 50 marks.
- (3) The Theory/ practical examination will have to be evaluated by the respective Ph.D guide and the results should be passed in the doctoral Committee and then be submitted to the University, within one year from the date of admission of Ph.D programme
- (4) The students shall obtain at least 55% in each of internal and external examination, that is 55% in this minimum pass mark of each of the internal and external examinations.
- (5) A pass in the course 'Research and Publication Ethics' is an essential for pre registration course work .
- (6) This course is offered in addition to the existing course work of three papers. Students with M.Phil degree who are exempted from course work, also should take this course and obtain a pass mark of 55%.



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Syllabus in Detail for two credit courses:

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 (5 Hrs.)
 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 behaviour and vice versa ,types
 5. Violation of publication ethics, authorship and contributor ship
 6. Identification of publication misconduct, complaints and appeals
 7. Predatory publishers and journals



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PRACTICE

- RPE 04 : OPEN ACCESS PUBLISHING (4hrs.)
 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 suggested, etc.

- RPE 05 : PUBLICATION MISCONDUCT (4hrs.)

A. Group Discussions (2hrs.)

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 (2hrs.)

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

- RPE 06: DATABASES AND RESEARCH METRICS (7HRS.)

A. DATABASES (4HRS.)

1. Indexing databases
2. Citation databases: Web of science, Scopus, etc.

B. RESEARCH METRICS (3HRS.)

1. Impact Factor of journal as per journal Citation Report, SNIP, SJR, IPP, Cite score
2. Metrics: h-index, G index, i10 index, altmetrics




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Research Methodology

1. BSc Viscom – Research Methodology in communication
2. Bcom Honours – Research Methodology
3. BA criminology – Research methods & statistics
4. BA sociology - Research methods
5. BA Tourism & Travel management – Research Methodology
6. Msc BioTech – Research methodology Bio ethics & Bio statistics
7. Msc Applied Microbiology – Research Methodology & Biostatistics
8. MBA - Research Methodology
9. MA Economics - Research Methodology
10. MA Business Economics - Research Methodology
11. MSW – Social work Research
12. MA HRM - Research Methodology
13. MA Journalism – Communication Research methods
14. BBA – Research Methodology
15. M.Com – Research Methodology


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ALLIED PAPER III: RESEARCH METHODS AND STATISTICS

Unit I: Introduction

Definitions; Objective of research; Motivation in research; Research methods; Meaning and Epistemology of scientific research; Formulation of the research problem; Research process; Literature survey.

Unit II: Fundamentals

Types of research – Descriptive, Applied, Fundamental, Qualitative, Quantitative, Empirical; Types and Characteristics of Research design; Hypothesis; Definition, Types, Formation and Testing; Types of References Styles such as APA, MLA, Harvard etc.

Unit III: Collection of Data

Population; Sample and Sampling; Types – Probability sampling and non-probability sampling, Criteria for selecting a sampling design; Research Tool; Measurements and Scaling; Mode of Collection of Data; Types of Data Collection; Ethics in Criminal Justice Research; Analysis of Data; Application of SPSS (Statistical Package for Social Sciences) in criminological research; Report Writing.

Unit IV: Basics of Statistics

Definitions; Significance; Crime statistics in India; Source of crime statistics; Problems in the use of statistics; Mean, Median and Mode; Measures of variability – Range, quartile deviation, standard deviation and coefficient; Merits of measures of central tendency and variability.

Unit V: Correlation and Inferential Statistics

Definitions; Concepts; Multiple correlation; Regression analysis; Test of significance; Normal probability distribution; Tests of significance – 't' test, Chi-square, F-test; Analysis of variance; One way and Two way classification.

Recommended Readings:

1. Agarwal, B. (2012). *Basic statistics*. Tumbridge Wells: Anshan.
2. Dane, F. C. (1990). *Research methods*. California: Brooks/Cole Publishing Company.
3. Dixon, B., Bouma, G., & Atkinson, C. (1987). *A handbook of social science research*. New York: Oxford University Press.
4. Freund, R., & Wilson, W. (2010). *Statistical methods* (3rd ed.). Amsterdam: Elsevier
5. Goode, William J., & Hatt P. K. (1952). *Methods in social research*. International student edition. New York: McGraw-Hill.
6. Denzin, N. K., & Lincoln, Y. S. (2003). *Strategies of qualitative data*. London: SAGE.
7. Silverman, D. (2004). *Qualitative research*. London: SAGE.



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Allied Paper III FUNDAMENTALS OF STATISTICS

Unit I: Introduction

Statistics – Definitions and significance; crime statistics; problems in the use of statistics; source of crime statistics

Unit II: Measures of central tendency:

Mean, median and mode; Measures of variability – range, quartile deviation, standard deviation, coefficient merits of measures of central tendency and variability.

Unit III: Correlation:

Product moment correlation method, rank correlation method, Multiple correlation (multivariate analysis), Kendall's coefficient of concordance, phi-coefficient; association of attributes – yule's coefficient of association, coefficient of contingency; regression analysis – simple regression; regression equations.

Unit IV: Inferential

Concept of statistical inference: test of significance; steps involved in testing of hypothesis; Normal probability distribution; tests of significance – CR, 't' test, Chi-square test, F-test; analysis of variance; One way and Two way classification.

Unit V: Computer Aided Statistics

Application of SPSS (Statistical Package for Social Sciences) in doing criminological research analysis. Each method has to be explained with the basic assumptions and applicability in Criminal Justice Research

1. Aggarwal, Y.P., (1990), Statistical methods, concepts, applications and computation, Sterling Publishers Pvt. Ltd., New Delhi.
2. Good William, J and Hatt, Paul, K., (1983), Methods of Social Research, McGraw Hill Publishers.
3. Guilford and Frachter. (1970), Fundamental statistics in psychology and Education, McGraw Hill, New York.
4. Gupta, S.P., Fundamental of Statistics.
5. Kurth, .N.R., (1983), Introduction to Social Statistics, McGraw Hill, New York.
6. Mohsin, (1989), Research methods in Behavioral Sciences, Orient Longman.
7. Nagarajan, K. (1987), Statistics made easy, Raj Publication.
8. Pine, V.R., (1977), Introduction to Social Statistics, Prentice Hall, New Jersey.
9. Simpson, George and Kafta, Fritz, (1965), Basic Statistics, Oxford and I.B.H. Publishing Co.



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Population; Sample and Sampling; Types – Probability sampling and non-probability sampling. Criteria for selecting a sampling design; Research Tool; Measurements and Scaling; Mode of Collection of Data; Types of Data Collection; Ethics in Criminal Justice Research; Analysis of Data

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1. Agarwal, B. (2012). *Basic statistics*. Tunbridge Wells: Anshan.
2. Dane, F. C. (1990). *Research methods*. California: Brooks/Cole Publishing Company.
3. Dixon, B., Bouma, G., & Atkinson, G. (1987). *A handbook of social science research*. New York: Oxford University Press.
4. Freund, R., & Wilson, W. (2010). *Statistical methods* (3rd ed.). Amsterdam: Elsevier
5. Goode, William J., & Hatt P. K. (1952). *Methods in social research*. International student edition. New York: McGraw-Hill.
6. Denzin, N. K., & Lincoln, Y. S. (2003). *Strategies of qualitative data*. London: SAGE.
7. Silverman, D. (2004). *Qualitative research*. London: SAGE.



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BA Sociology

PAPER-VIII: RESEARCH METHODOLOGY AND STATISTICS

Unit-I: Science and Scientific Methods:

What is Scientific Research- Types, Importance and uses- Steps in Social Research- Theory and Facts- Hypothesis.

Unit-II: Research Design: Meaning, Types – Descriptive, Explorative-

Experimental – Diagnostic and Comparative- Functions of research design.

Unit-III: Technique and Tools of Data Collection:

Schedule- Questionnaire- Interview, Observation- Case Study- Content analysis – Social Survey- Projective technic.

Unit-IV: Sampling methods and Report writing:

Types- Probability and Non- Probability Sampling, Report writing- Steps in Report Writing.

Unit-V: Statistics: Meaning- Scope and importance of statistics in Social

Research. Measures of Central Tendency- Mean- Median- Mode- Measures of Dispersion- Range- Quartile – Standard Deviation- Correlation and Regression. Role of Computers in Research.

Text Books:

Kothari C.R., Research Methodology – Methods and Techniques, wiley eastern limited, Madras, 1985.

Goode, Williams and Hatt Paul : Methods in Social Research, McGraw- Hill Book Company, London 1981.

REFERENCES:

Young Pauline V: Scientific Social Surveys and Research. PHI.

Mitchall, Mark and Jamina Jolley, Research Design Explainer, Holt, Rinehart and Winston inc., New york, 1988.

Gane, Mike: On Durkheims Rules of Sociological Method, Routledge, London, 1988.

Boalt, Gunnar: The Sociology of Research, Southern Illinois University Press, London, 1969.

Blalock, J.R., Hubert, M. Social Statistics, Mc Graw Hill. International Editions, Washington, 1981.

Hunt, Morton: Profiles of Social Research, Russell Sage Foundation, New York, 1920.



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Total Credits – 28

S.NO	COURSE COMPONENTS	NAME OF THE COURSE	CREDITS	EXAM DURATION	MAX MARKS	
					CIA	ESE EXTERNAL
1	CORE IX	Global Tourism	5	3	25	75
2	CORE X	Human Rights	5	3	25	75
3	CORE XI	Hotel Management and Catering	5	3	25	75
4	ELECTIVE I	Research Methodology	5	3	25	75
5	ELECTIVE II	Basics of Computers	5	3	25	75
6	PART - IV	SUMMER INTERNSHIP PROJECT	3	-	25	75

*Summer Internship is to be undertaken for course completion

RESEARCH METHODOLOGY

UNIT 1 – Research – Definition – Characteristics – Objectives – Types of Research

UNIT 2 – Research Design – Importance – Qualitative vs Quantitative – Research Problem

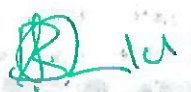
UNIT 3 – Data Collection – Primary Data – Secondary Data – Questionnaire method – Schedule - Interview

UNIT 4 – Hypothesis – Types of Hypothesis – Testing a hypothesis - Plagiarism

UNIT 5 – Report writing – Steps in Report writing –Foot notes – Bibliography

BOOKS FOR REFERENCE:

1. Research Methodology Practice – P. Philominathan – Shri A.V.V.M. Pushpam College – Poondi –Thanjavur
2. Research Methodology – Methods & Techniques, Kothari C. R. – Vishwa Prakashan – New Delhi 1990.
3. An Introduction to Research Procedure in Social Sciences – Gopal M. A. – Asia Publishing House - Bombay
4. Darlington, Richard B., Sharon Weinberg, and Herbert Walberg (1973). Canonical variate analysis and related techniques. Review of Educational Research.


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SEMESTER	V	
SUBJECT	RESEARCH METHODOLOGY	
CORE / ALLIED / ELECTIVE	CORE	
Maximum Marks	CIA – 40 Marks	ESE – 100 Marks
Credits / Instruction Hours	4 Credits / 60 Hours	
Exam Duration	3 Hours	

Unit I:

Introduction to research methodology – meaning and purpose – *Types of Research ; Research design – steps in selection & formulation of a research problem – steps in research.

Unit II:

Hypothesis – Types – concept and procedures of testing of Hypothesis – *sampling techniques – sampling error and sample size.

Unit III:

Measurement & scaling techniques – Data – Meaning – Information & Data - Data collection – methods – testing validity and reliability.

Unit IV:

*Processing of data – Editing, coding, classification & tabulation, analysis of data – outline of statistical analysis – elements of processing through computers (Application of SPSS – Theoretical concepts).

Unit V:

Interpretation and Report Writing – meaning & precautions in interpretation, types of reports – style & conventions in reporting – steps in drafting of report.

*** Self Study Portion**

End Semester Questions Pattern	Total Questions	To Answer Questions	Marks Per Question	Total Marks
Section – A	12	10	2	20
Section – B	7	5	7	35
Section – C (i)	1	1	15	15
Section – C (ii)	4	2	15	30

Note: 1. Question in Section – C(i) is a Case Study Based / Practical Question (Compulsory Question)

(# - Unit for Compulsory Question)

2. Case Study question be based on Structuring of questionnaire / Drafting of model Reports.

Reference Books:

1. Dr.M.Ranganatham, Business Research Methods, Himalayas Publishing
2. William C Emory, Business Research Methods, R.D. Irwin Incorp.
3. Robert G Murdick, Business Research – Concepts & Practice, International text book company
4. Kothari C.R., Research Methodology, Vikas Publishing Ltd
5. Ravilochanan, Research Methodology, Margham Publications.



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[Affiliated to University of Madras]

Post Graduate & Research Department of Commerce

II YEAR M.COM

Semester – III

Core Paper IX - RESEARCH METHODOLOGY

OBJECTIVE:

To impart in-depth insight on various methods used in Research

UNIT I

Research – Meaning, objectives, motivation, utility – characteristics of scientific method – theory, empiricism, deductive and inductive approaches – language, concepts, construct, definition, independent & dependent variables – Research process/ Steps – Problem identification – formulation of research question – Review of literature.

UNIT II

Types of research – pure and applied, survey, case study, analytical, conceptual – Qualitative and quantitative research- Research Design – importance – features of a good research design – exploratory, descriptive and experimental design.

UNIT III

Hypothesis – qualities of a good hypothesis – null hypothesis & alternative hypothesis, hypothesis testing – logic & importance – Methods of data collection – primary and secondary data- observation – interview- questionnaire – Sampling- statistical population, sample, sampling frame, sampling error, sample size, non response- characteristics of a good sample – probability and non probability, sampling techniques.

UNIT IV

Levels of measurement – nominal, ordinal, interval and ratio scales – problems in measurement – testing validity and reliability – pilot study and pre-testing – Processing and analysis of data- editing – coding – transcription – tabulation – univariate, bivariate and multivariate analysis – use of computer software.

UNIT V

Report writing - target audience -types of reports -contents of reports - Title page, Abstract, Introduction, Methodology, Result, Discussion, References, and Appendices – styles and conventions in reporting – ethical considerations – plagiarism, paraphrasing, quotations and footnotes.

PART A – Answer any 10 out of 12 (10 x 2 = 20)

PART B – Answer any 5 out of 8 (5 x 5 = 25)

PART C – Answer any 3 out of 5 (3 x 10 = 30)

COURSE OUTCOME:

The course provides in-depth insight on the various methods used in research.

RECOMMENDED TEXTS

1. William C Emory, Business Research Methods, Richard D Irwin, NJ,
2. Donald R Cooper, Business Research Methods 7th Ed, McGraw Hill, 2001
3. Krishnaswami OR, Methodology of Research for Social Science, Himalaya, Mumbai, 2001.
4. Anderson J. et.al, Thesis and Assignment writing, Wiley Eastern
5. Research Methodology by Ravilochanan

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RESEARCH METHODOLOGY AND BIOSTATISTICS

Learning Outcome:

- To gain basic knowledge and ideas on research view
- To find numerical solutions to scientific data
- To analyze and interpret scientific data using numerical and mathematical equations
- Classify various types of data and apply basic statistical concepts such as measures of central tendencies, measures of dispersion and sampling
- Use concepts of probability, probability laws, probability distributions and apply them in solving biological problems and statistical analysis

UNIT - I

Introduction to Research Methodology: Meaning and importance. Statement, Constraints, Review of literature - Review and synopsis presentation. Types of research, Research tools. Methods and techniques of data collection: types of data, methods of primary data collection (observation/ experimentation/ questionnaire/ interviewing/ case/pilot study, methods), methods of secondary data collection.

Unit II

Sampling and sampling distributions: Sampling frame, importance of probability sampling, sampling - simple random, systematic, stratified random and cluster. Variables: nominal, ordinal, discontinuous, continuous, derived. Research process, designs and Report writing: types of research reports, guidelines for writing an article and report, report format, appendices, Ethical issues related to publishing, Plagiarism and Self-Plagiarism.

UNIT - III

Introduction to Biostatistics - Basic concepts, Measurement and measurement scales, Sampling and data collection, Data presentation. Measures of central tendency: Mean, Median, Mode. Measures of variability: Standard deviation, standard error, range, mean deviation and coefficient of variation. Frequency table of single discrete variable, bubble plot, computation of mean, variance and standard Deviations, t test, correlation coefficient.



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RESEARCH METHODOLOGY**CORE 8**

Teaching hours: 90 hours

SubCode:03517

Credits:05

Learning Objectives :

1. To acquire basic knowledge about research and its approaches.
2. To equip students in carrying out a research project
3. To familiarize the students to present their research findings.

Unit - I:

Nature and scope of social research, Aims, objectives, nature of theory and data, relevance to social research (15 hours)

Unit - II:

Stages of research, selection of problem, formulation of problem, theoretical problem, formulation of hypothesis, research design (15 hours)

Unit - III:

Data collection, technique, observation, schedule, questionnaire, interview methods, Social Survey, importance and scope of social survey, preparation of budgets, staff and its training (25 hours)

Unit -IV: Analysis of data, editing, processing, consolidation and tabulation, application of techniques, scaling techniques (15 hours)

Unit - V:

Research presentation, organization of research presentation, aims and objectives, effectiveness in the presentation of statistical data, rules for arrangement of text, diagrams, references (20 hours)

RECOMMENDED BOOKS:

1. Ravilochanan.P, *Research Methodology*, Margham publications, Edition 2012.
2. Kothari C.R. *Research Methodology and Techniques*, New Age international pvt ltd, edition 2013.

REFERENCE BOOKS:

1. Srivastava.T.N&ShailajaRego, *Research Methodology*, Tata McGraw Hill, Edition 2011.
2. Tripathi P.C, *A Text Book of Research Methodology in Social Sciences*, sultan chand & co. edition 2010.
3. Dr. Deepikachawla & Dr. Neenasondhi, *Research Methodology*, vikas publishing House Pvt Ltd, edition 2011.
4. Ranjithkumar, *Research Methodology*, Sage Publications, Edition 2013.
5. Cauvery.R, *Research Methodology*, Sultan Chand & Co Pvt Ltd, Edition 2010.



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MA BUSINESS ECONOMICS
RESEARCH METHODOLOGY (32313)

UNIT- I

Nature and Scope of Social Research - Aims - objectives. The nature of theory and data(fact) and their relevance for social research

UNIT -II

Stages in research process - Selection of problem - Formulation of research problem -Theoretical frame work - Formulation of Hypotheses - Research designs – Report Writing.

UNIT- III

Techniques of data collection; Observation, Schedule and Questionnaire - and interview methods - Projective and other methods and organization of social surveys - Importance and scope of social survey analysis of the different steps involved in the planning - Preparation of budget - Staff and its training.

UNIT- IV

Analysis of data: Editing, Processing, Consolidation and Tabulation Application of Techniques - Scaling Techniques.

UNIT- V

Preparation of Research Reports – Objective, Types and Process – Problems and Difficulties – Measures to Overcome the Difficulties.

BIBLIOGRAPHY : Recommended Text

1. Goode W.J. and Hatt. P.K : Method in Social Research, McGraw Hill
2. Kothari C.R. : Research Methodology, Methods and Techniques, Wiley Eastern Limited, New Delhi

Books for Reference

1. Ravilochanan (2003) : Research Methodology, Margam Publications, 2nd Edn
2. Cochran W.G. : Sampling Techniques, John Wiley and Sons
3. Donald. R. Cooper : Business Research Methods, Tata McGraw Hill, New Delhi
Pamela S. Schindler
3. Forces and Bircher : Social Research Methods, Prentice Hall
4. Hicks J.R. : Casualty in Economics
5. Kurien C.T. : A guide to Research in Economics, Sangam Publishing House.
6. Young. P. : Scientific Social Surveys and Research, Prentice Hall
7. Kothari C.R. : Research Methodology – Methods and Techniques.
8. Goode. W.J. : Method in Social Research.
- 9.C.R. Kothari (2004) : Research Methodology, New Age International, 2nd Edn



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Core Paper -7 :Communication Research Methods

Unit 1

Foundations of Communication Research :Definition ,Nature and scope of communication research . Elements of research-epistemology, theoretical framework.Process and types of research.Significance of research.

Unit 2

Types of research design. Hypothesis.Concepts in research.Variables, units of analysis.Validity, Reliability, error factor.

Unit 3

Sampling.Types of sample.Probability and Non- probability.Sampling problems.Sample error.Choosing a sample design.Data Analysis.

Unit 4

Data Collection methods.Primary data and secondary data.Types of secondary data.Survey data, observation data.Questionnaire method.Structured and non- structured.Telephone and personal interviews.Questionnaire construction methods.

Unit 5

Research Application : print media, electronic media, advertising, public relation and new media. Research institutions.scope in media research; funding agencies. Writing a research report and evaluation of research. Legal and ethical issues.

References :

Wimmer, Rogar D and Dommick, Joseph R(1994). Mass Media Research: An Introduction (Fourth Edition Wadsworth Publishing Company)

Berger, Arthur Berger (2000). Media and Communication Research Methods.An Introduction to Qualitative and Quantitative Approaches. Sage Publications

Priest, Susama Horning (1996): Doing Media Research: An Introduction (Sage Publications)

Lewis-Beck, Michael S (ed) (1994) Experimental Design Methods. International handbook of Quantitative Applications in the Social Sciences (Sage Publications)

Kumar, Ranjit. Research Methodology: A Step by Step Guide for Beginners (Sage Publications)

Blaxter, Loraine. Huges, Christina and Tight, Malcolm (1996) How to research (Open University Publications)



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CORE PAPER XIV – RESEARCH METHODOLOGY IN COMMUNICATION

Unit 1: NATURE OF SOCIAL RESEARCH

Meaning and definition of research -Criteria of good research - Objectives of social research - Deductive and inductive method -Objectivity in social research -Difficulties of social research- Classifications of research

Unit 2: LEVELS OF RESEARCH PROJECTS AND PROBLEM SELECTION

Problem awareness, selection and formulation -Selecting a topic for research -Types of research problems, in social science -Sources of research problem - Review of literature - Formulating and stating the problem

Unit 3: CONCEPT, THEORY AND HYPOTHESIS

Concepts -Theory -Functions of theory -Definition of hypothesis -Types of hypothesis
Criteria of hypothesis -Difficulties in formulation of hypothesis

Unit 4: RESEARCH DESIGN AND SAMPLE DESIGN

Meaning of research design -Important concepts relating to research design -Major steps in formulating a research design -Factors affecting research design -Meaning of sample - Principles of sampling -Methods of sampling -Criteria for a sample

Unit 5: SCHEDULES, INTERVIEWS AND PROCESSING OF DATA

Schedules -Questionnaires -Meaning and forms of questionnaire . Interview -Types of interview – Observation – Types of Observation .Content analysis. Writing a research report.

References :

1. Saravanel, P, Research Methodology
2. Hansen. Andresse A.L., Mass Communication Research Methods
3. Dr. Mereado ,Communication Research Methods
4. Pamela L. Alreck , Robert B. Settle ,The Survey Research Handbook.
5. Kothari , C.R., Research Methodology – Methods and Techniques, 2- Edition, Newage International Pvt. Ltd.



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BCom Honours

SEMESTER	V	
SUBJECT	RESEARCH METHODOLOGY	
CORE / ALLIED / ELECTIVE	CORE	
Maximum Marks	CIA – 40 Marks	ESE – 100 Marks
Credits / Instruction Hours	4 Credits / 60 Hours	
Exam Duration	3 Hours	

Unit I:

Introduction to research methodology – meaning and purpose – **Types of Research* ; Research design – steps in selection & formulation of a research problem – steps in research.

Unit II:

Hypothesis – Types – concept and procedures of testing of Hypothesis – **sampling techniques* – sampling error and sample size.

Unit III:

Measurement & scaling techniques – Data – Meaning – Information & Data - Data collection – methods – testing validity and reliability.

Unit IV:

**Processing of data – Editing, coding, classification & tabulation*, analysis of data – outline of statistical analysis – elements of processing through computers (Application of SPSS – Theoretical concepts).

Unit V:

Interpretation and Report Writing – meaning & precautions in interpretation, types of reports – style & conventions in reporting – steps in drafting of report.

** Self Study Portion*

End Semester Questions Pattern	Total Questions	To Answer Questions	Marks Per Question	Total Marks
Section – A	12	10	2	20
Section – B	7	5	7	35
Section – C (i)	1	1	15	15
Section – C (ii)	4	2	15	30

Note: 1. Question in Section – C(i) is a Case Study Based / Practical Question (Compulsory Question) (# - Unit for Compulsory Question)

2. Case Study question be based on Structuring of questionnaire / Drafting of model Reports.

Reference Books:

1. Dr.M.Ranganatham, Business Research Methods, Himalayas Publishing
2. William C Emory, Business Research Methods, R.D. Irwin Incorp.
3. Robert G Murdick, Business Research – Concepts & Practice, International text book company
4. Kothari C.R., Research Methodology, Vikas Publishing Ltd
5. Ravilochanan, Research Methodology, Margham Publications.



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BA sociology

PAPER-VIII: RESEARCH METHODOLOGY AND STATISTICS

Unit-I: Science and Scientific Methods: What is Scientific Research- Types, Importance and uses- Steps in Social Research- Theory and Facts- Hypothesis.

Unit-II: Research Design: Meaning, Types – Descriptive, Explorative- Experimental – Diagnostic and Comparative- Functions of research design.

Unit-III: Technique and Tools of Data Collection: Schedule- Questionnaire- Interview, Observation- Case Study- Content analysis – Social Survey- Projective technic.

Unit-IV: Sampling methods and Report writing: Types- Probability and Non-Probability Sampling, Report writing- Steps in Report Writing.

Unit-V: Statistics: Meaning- Scope and importance of statistics in Social Research. Measures of Central Tendency- Mean- Median- Mode- Measures of Dispersion- Range- Quartile – Standard Deviation- Correlation and Regression. Role of Computers in Research.

Text Books:

Kothari C.R., Research Methodology – Methods and Techniques, wiley eastern limited, Madras, 1985. Goode, Williams and Hatt Paul : Methods in Social Research, McGraw- Hill Book Company, London 1981.

REFERENCES: Young Pauline V: Scientific Social Surveys and Research. PHI. Mitchall, Mark and Jamina Jolley, Research Design Explainer, Holt, Rinehart and Winston inc., New york, 1988. Gane, Mike: On Durkheims Rules of Sociological Method, Routledge, London, 1988. Boalt, Gunnar: The Sociology of Research, Southern Illinois University Press, London, 1969. Blalock, J.R., Hubert, M. Social Statistics, Mc Graw Hill. International Editions, Washington, 1981. Hunt, Morton: Profiles of Social Research, Russell Sage Foundation, New York, 1920. Kothari, C.R., Quantitative Techniques, Vikas Publishing House (Pvt) Ltd. New Delhi – 1978. Michael S. Lewis – Beck, (Ed) Experimental Design & Methods, Sage Publications, Toppan, Publishing United Kingdom, 1990.



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Total Credits – 28

S.NO	COURSE COMPONENTS	NAME OF THE COURSE	CREDITS	EXAM DURATION	MAX MARKS	
					CIA	ESE EXTERNAL
1	CORE IX	Global Tourism	5	3	25	75
2	CORE X	Human Rights	5	3	25	75
3	CORE XI	Hotel Management and Catering	5	3	25	75
4	ELECTIVE I	Research Methodology	5	3	25	75
5	ELECTIVE II	Basics of Computers	5	3	25	75
6	PART - IV	SUMMER INTERNSHIP PROJECT	3	-	25	75

*Summer Internship is to be undertaken for course completion

RESEARCH METHODOLOGY

UNIT 1 – Research – Definition – Characteristics – Objectives – Types of Research

UNIT 2 – Research Design – Importance – Qualitative vs Quantitative – Research Problem

UNIT 3 – Data Collection – Primary Data – Secondary Data – Questionnaire method –
Schedule - Interview

UNIT 4 – Hypothesis – Types of Hypothesis – Testing a hypothesis - Plagiarism

UNIT 5 – Report writing – Steps in Report writing –Foot notes – Bibliography

BOOKS FOR REFERENCE:

1. Research Methodology Practice – P. Philominathan – Shri A.V.V.M. Pushpam College – Poondi –Thanjavur
2. Research Methodology – Methods & Techniques, Kothari C. R. – Vishwa Prakashan – New Delhi 1990.
3. An Introduction to Research Procedure in Social Sciences – Gopal M. A. – Asia Publishing House - Bombay
4. Darlington, Richard B., Sharon Weinberg, and Herbert Walberg (1973). Canonical variate analysis and related techniques. Review of Educational Research.



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M.Sc., BIOTECHNOLOGY


CHOICE BASED CREDIT SYSTEM

Course of Study and Scheme of Examination - First Semester

S. No.	Course Components	Name of Course	Semester	Inst. Hrs	Credits	Exam Hrs	Max. Marks	
							CIA	External
1.	Core Paper-1	Biochemistry	I	4	4	3	40	60
2.	Core Paper-2	Microbiology and Immunology	I	4	4	3	40	60
3.	Core Paper-3	Molecular Cell Biology	I	4	4	3	40	60
4.	Elective Paper – 1A*	Molecular Genetics	I	3	3	3	40	60
		or						
5.	Elective Paper – 1B*	Ecology, Evolution and Behavior	I	3	3	3	40	60
	Elective Paper – 2A*	Developmental Biology	I	3	3	3	40	60
6.		or						
	Elective Paper – 2B*	Food technology	I	3	3	3	40	60
7.	Core Practical - I	a) Biochemistry b) Microbiology & Immunology c) Molecular Cell Biology	I	12	4	6	40	60
8.		Soft Skill – I	I		2	3	50	50
Total Credits : 24								

Second Semester

S. No.	Course Components	Name of Course	Semester	Inst. Hrs	Credits	Exam Hrs	Max. Marks	
							CIA	External
1.	Core Paper - 4	Animal Biotechnology and Stem cell biology	II	4	4	3	40	60
2.	Core Paper - 5	Plant Biotechnology	II	4	4	3	40	60
3.	Core Paper - 6	Genetic Engineering	II	4	4	3	40	60
4.	Core Paper - 7	Bioinformatics	II	4	4	3	40	60
5.	Elective Paper – 3A*	Animal and Plant Physiology	II	3	3	3	40	60
		or						
6.	Elective Paper – 3B*	Marine Biotechnology	II	3	3	3	40	60
	Core Practical-II	a) Animal Biotechnology b) Plant Biotechnology c) Genetic Engineering d) Bioinformatics	II	11	4	6	40	60
7.		Soft skill – II	II		2	3	50	50
8.		Mini project/Internship*	II		2			
<p>* Summer Internship/ Mini project will be carried out during end of the first year for at least 4-6 weeks duration in any industry and institutes. The marks will be awarded at the end of II semester and it will be included in third Semester mark statement.</p>								
Total credits: 27								


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Third Semester

S. No.	Course Components	Name of Course	Semester	Inst. Hrs	Credits	Exam Hrs	Max. Marks	
							CIA	External
1.	Core Paper- 8	Bioprocess Technology	III	4	4	3	40	60
2.	Core Paper – 9	Enzymes & enzyme Technology	III	4	4	3	40	60
3.	Core Paper - 10	Environmental biotechnology	III	4	4	3	40	60
4.	Elective Paper – 4A*	Pharmaceutical Biotechnology	III	3	3	3	40	60
		or						
	Elective Paper – 4B*	Advanced Molecular techniques	III	3	3	3	40	60
5.	Elective Paper – 5A*	Nano Biotechnology	III	3	3	3	40	60
		or						
	Elective Paper – 5B*	Herbal Technology	III	3	3	3	40	60
6.	Core Practical- III	a) Bioprocess Technology b) Enzymes & enzyme Technology c) Environmental Biotechnology	III	12	4	6	40	60
		Soft Skill – III	III		2	3	50	50
Total Credits : 24								

Fourth Semester

S. No	Course Component	Name of Course	Semester	Inst. Hrs	Credits	Exam Hrs	Max. Marks	
							CIA	External
1.	Core Paper - 11	Research Methodology, Bioethics & Biostatistics	IV	5	4	3	40	60
2.	Elective Paper – 6A*	Tissue Engineering	IV	5	3	3	40	60
		or						
	Elective Paper – 6B*	Forensic Science	IV	5	3	3	40	60
3.	Elective Paper – 7A*	Industrial Biotechnology	IV	5	3	3	40	60
		or						
	Elective Paper – 7B*	Clinical Trials	IV	5	3	3	40	60
4.		Project dissertation & Viva voce	IV	15	4		40	60
5.		Soft Skill- IV	IV		2	3	50	50
Total Credits : 16								



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FOURTH SEMESTER

Title of the paper	Core Paper 11: Research Methodology, Bioethics & Biostatistics		
Category of the course	Year	Semester	Credits
Elective	II	IV	4
Objective of the Course:			
<ul style="list-style-type: none"> • Implying research methodology for final year Post-graduate student plays a significant role in helping them to draft their projects effectively. It provides the knowledge to identify the overall process of designing a research study and able to identify research problem stated in a study. • Bioethical issues concerning the reproduction is to be inculcated broadly without any gender bias. Graphical representation and statistical analysis will pave the way for the significant researcher. 			
Learning Outcome			
<ul style="list-style-type: none"> • The need for research and train them the bioethical research. It even develops to use contemporary applications of epidemiological and statistical methods. 			

UNIT 1

(12 h)

Research – definition, application, characteristics and types. Research process. Formulation of research problems, literature survey. Conceptualization (definition and function) of a research design. Data collection – Methods; Sampling – concept, principles and types; Writing a research proposal.

UNIT 2

(12 h)

BioEthics-Issues concerning reproduction, Birth, life and Death (Artificial insemination, egg donation, IVF, embryo transplants, Prenatal diagnosis and sex selection & Abortion) – Ethical implications on issues concerning organ transplants, Stem cells, Human genome project, Gene therapy and Cloning.

UNIT 3

(12 h)

Sampling and sample designs, diagrammatic and graphic presentation-types of diagrams. Graphs - technique for constructing graphs. Graphs of frequency distributions-Histograms, frequency polygon, frequency curve, limitations of diagrams and graphs.

UNIT 4

(12 h)

Biometry, collection, classification and tabulation of data, measures of central tendency-(Arithmetic harmonic and geometric mean), median and mode, measures of dispersions-standard deviation, quartile deviation and mean deviation, skewness, moments and kurtosis, standard error and standard curve.

UNIT 5

(12 h)

Probability theory – probability distribution, Binomial, Poisson and Normal distribution. Correlation coefficient and regression analysis. Test of significance, t-test, chi square test, one way and two ways ANOVA. Introduction to software packages SPSS, MINITAB, MATLAB.

Reference Books:

1. Research methodology a step by step guide to beginners Second edition. Ranjith kumar 2005.
2. Human Rights Global issues- Mishra Pramod, 2000 Kalpaz publications.
3. Thirukkural- Arathupal and porutpal- Thiruvalluvar
4. Bioethics. S.Ignacimuthu,2009, Narosa publications.
5. Bioethics and Biosafety in Biotechnology- V.Sree Krishna.



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RESEARCH METHODOLOGY AND BIOSTATISTICS

Learning Outcome:

- To gain basic knowledge and ideas on research view
- To find numerical solutions to scientific data
- To analyze and interpret scientific data using numerical and mathematical equations
- Classify various types of data and apply basic statistical concepts such as measures of central tendencies, measures of dispersion and sampling
- Use concepts of probability, probability laws, probability distributions and apply them in solving biological problems and statistical analysis

UNIT - I

Introduction to Research Methodology: Meaning and importance. Statement, Constraints, Review of literature - Review and synopsis presentation. Types of research, Research tools. Methods and techniques of data collection: types of data, methods of primary data collection (observation/ experimentation/ questionnaire/ interviewing/ case/pilot study, methods), methods of secondary data collection.

Unit II

Sampling and sampling distributions: Sampling frame, importance of probability sampling, sampling - simple random, systematic, stratified random and cluster. Variables: nominal, ordinal, discontinuous, continuous, derived. Research process, designs and Report writing: types of research reports, guidelines for writing an article and report, report format, appendices, Ethical issues related to publishing, Plagiarism and Self-Plagiarism.

UNIT - III

Introduction to Biostatistics - Basic concepts, Measurement and measurement scales, Sampling and data collection, Data presentation. Measures of central tendency: Mean, Median, Mode. Measures of variability: Standard deviation, standard error, range, mean deviation and coefficient of variation. Frequency table of single discrete variable, bubble plot, computation of mean, variance and standard Deviations, t test, correlation coefficient.


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UNIT - IV

Correlation and regression: Positive, negative, calculation of Karl-Pearsons co-efficient of correlation. Linear regression and multiple linear regression, ANOVA, one and two way classification. Calculation of an unknown variable using regression equation. Tests of significance: Tests of significance: Small sample test (Chi-square t test, F test), large sample test (Z test) and standard error.

Unit – V

Probability and distributions: Introduction to probability theory and distributions, (concept without deviation) binomial, poisson and normal (only definitions and problems) Computer oriented statistical techniques. RSM: methods for process optimization, set up CCD, Box Behnken, optimal RSM design, regression models FDS curves, surface contours, multilinear constraints and categorical factors to optimal design.

References:

1. *Business Research Methods* – Donald Cooper & Pamela Schindler, TMGH, 9th edition
2. *Business Research Methods* – Alan Bryman & Emma Bell, Oxford University Press.
3. *Research Methodology* – C.R.Kothari
4. *Statistics in biology*, Vol. 1 by Bliss, C.I.K. (1967) Mc Graw Hill, New York.
5. *Practical Statistics for experimental biologist* by Wardlaw, A.C. (1985).
6. *Programming in C* by E. Ballaguruswamy
7. *How Computers work* - 2000. By Ron White. Tech. Media
8. *How the Internet Work* 2000 by Preston Gralla Tech. Media.
9. *Statistical Methods in Biology* - 2000 by Bailey, N.T. J. English Univ. Press.
10. *Biostatistics* - 7th Edition by Daniel, 2001
11. *Fundamental of Biostatistics* by Khan, 1997
12. *Biostatistical Methods* by Lachin, 2004
13. *Statistics for Biologist* by Campbell R.C. (1974) Cambridge, University Press, UK.



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MBA

RESEARCH METHODOLOGY

Course Code: MBA -205

Objective:

This course aims at providing the students with the knowledge of scientific paradigms and research

methods, skills required to conduct research to generate dependable data for solving managerial problems and to meet the challenge of the fast paced decision making environment.

Contents: Unit I:

Introduction-Business Research-Definition and significance-the research process-Types of Research- Exploratory and causal Research-Theoretical and empirical Research-Cross-Sectional and time-series Research -Research questions/problems-Research objectives-Research hypotheses-Characteristics- research in an evolutionary perspective -the role of theory in research.

Unit II:

Research design-definition-types of research design-exploratory and causal research design-descriptive and experimental design-different type of experimental design-validity of findings-internal and external validity-variables in research-measurement and scaling-different scales-construction of instruments- validity and reliability of instrument.

Unit III:

Types of data-primary vs secondary data-Methods of primary data collection- Survey Vs observation- Experiments- Construction of questionnaire and instrument- Validation of questionnaire-sampling plan- sample size-determinants optimal sample size-sampling techniques-ProbabilityVs non probability sampling methods

Unit IV:

Data preparation-editing-coding-data entry-validity of data-hypothesis testing-qualitative vs quantitative data analysis-bivariate and multivariate statistical techniques-factor analysis - discriminant analysis- cluster analysis-multiple regression and correlation-multi dimensional scaling-application of statistical software for data analysis, SPSS& R Open Source software

Unit V:

Research report-different types-contents of report-need of executive summary-chapterization-contents of chapter-report writing- The role of audience-Readability-comprehension-tone-final proof-report format-title of the report-ethics in research-ethical behavior of research-subjectivity and objectivity in research(ONLY CONCEPTS TO BE TESTED)

Note : Data analysis will be taught through SPSS and R Open Source software



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Text books :

1. Research Methodology in Social Sciences by P.C.Tripathi, Sultan Chand , New Delhi, Edition6, 2010
2. Research Methodology by C.R.Kothari, WishwaPrakashan, Edn 6, 2000

Reference Books:

1. Zikmund, Business Research Methods, 7thedn., Thompson
2. Donald R. Cooper and Ramela S. Schindler, Business Research Methods, 8th ed., Tata McGraw Hill Publishing Co Ltd., New Delhi ,2000
3. Research Methodology : a guide for Researchers in Management and Social Sciences, Taylor, Sinha, Prentice Hall India.4.Research Methods William Trochim, Biztantrapublishing5.Research for Marketing, Green Tull and Albaum, PHI



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MA BUSINESS ECONOMICS
RESEARCH METHODOLOGY (32313)

UNIT- I

Nature and Scope of Social Research - Aims - objectives, The nature of theory and data(fact) and their relevance for social research

UNIT –II

Stages in research process - Selection of problem - Formulation of research problem -Theoretical frame work - Formulation of Hypotheses - Research designs – Report Writing.

UNIT- III

Techniques of data collection; Observation, Schedule and Questionnaire - and interview methods - Projective and other methods and organization of social surveys - Importance and scope of social survey analysis of the different steps involved in the planning - Preparation of budget - Staff and its training.

UNIT- IV

Analysis of data: Editing, Processing, Consolidation and Tabulation Application of Techniques - Scaling Techniques.

UNIT- V

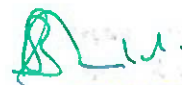
Preparation of Research Reports – Objective, Types and Process – Problems and Difficulties – Measures to Overcome the Difficulties.

BIBLIOGRAPHY : Recommended Text

1. Goode W.J. and Hatt. P.K : Method in Social Research, McGraw Hill
2. Kothari C.R. : Research Methodology, Methods and Techniques, Wiley Eastern Limited, New Delhi

Books for Reference

1. Ravilochanan (2003) : Research Methodology, Margam Publications, 2nd Edn
2. Cochran W.G. : Sampling Techniques, John Wiley and Sons
3. Donald. R. Cooper : Business Research Methods, Tata McGraw Hill, New Delhi
Pamela S. Schindler
3. Forces and Bircher : Social Research Methods, Prentice Hall
4. Hicks J.R. : Casualty in Economics
5. Kurien C.T. : A guide to Research in Economics, Sangam Publishing House.
6. Young. P. : Scientific Social Surveys and Research, Prentice Hall
7. Kothari C.R. : Research Methodology – Methods and Techniques.
8. Goode. W.J. : Method in Social Research.
- 9.C.R. Kothari (2004) : Research Methodology, New Age International, 2nd Edn



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MA ECONOMICS
RESEARCH METHODOLOGY

Subject code: 31103

Total Hours - 90

UNIT-I

Meaning of Research - Nature and scope of Social Research – Aims – Objectives – Basic Principles of Research – Types of Research – Research Process.

UNIT-II

Review of Literature – Empirical and Theoretical Framework - Formulation of Hypothesis – Selection of Research problem - Research design.

UNIT-III

Techniques of data collection - Observation, schedule, questionnaire and interview method - Social survey - Case study.

UNIT-IV

Analysis of data – Editing – Coding - Processing - Consolidation and tabulation – Scaling techniques - Likert's scale – Application of software techniques.

UNIT-V

Research presentation - General organization of research presentation – Rules for arrangement of text, diagrams – Reference - Bibliography and footnote.

Recommended Texts:

1. Cochran w.g.(1983) - Sampling techniques(second edition)
2. Donald R.Cooper, Pamela S. Schindler(1999) - Business - Research Methods Tata Mcgraw Hill, New Delhi.
3. V.Shanmugasundaram,- Methodology of Research in Social Science - Madras University- 1974.

Reference Books:

1. Forces And Bircher(1973) - Social Research Method.
2. Basil Blackwell, Kiplinger - Foundation Of Behavioral Research
4. Kurien ,C.T.(Ed)(1973) - A Guide To Research In Economics- Sangam publishing house
5. Murthy ,M.N.(1967) - Sampling Theory And Methods – Statistical publishing society



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Definition of Personality, Type & Trait theories - Basic concepts of Psychoanalytic theory, Psychosocial Theory - Cognitive theory: Bandura's Social learning model - Maslow's Hierarchy of Needs - Carl Roger's Client Centered Theory

Unit- 4: Introduction to Sociology and concepts

(6 hrs)

Definition - Society: Definition - meaning and characteristics - Culture: Definition, characteristics, structure, functions, reasons for cultural - development and cultural change, subculture, contra-culture. - Status & Role: Types and Characteristics - Social Stratification: Definition, Characteristics, Caste, Class & Race.
Social Change: Meaning, Characteristics, Change

Unit-5: Social Groups and institutions:

(6 hrs)

Definition, Characteristics and Classification of Groups - Primary groups and Secondary Groups - Social Interaction & Social Process: Competition, Co-operation, Conflict, Accommodation & Assimilation. - Socialization: Definition, Characteristics, Types and Agencies of Socializations - Theories of Socialization. - Social Institutions: Structural aspects - Norms, Values, Folkways & Mores - Types of Social institutions: Family, Marriage, Education, Economy, Polity, Religion

References

1. Mac Iver, R.M., Page, C.H. (2000). *Society an Introductory Analysis*. New Delhi: Macmillan Publishers India.
2. Rawat, H. (2007). *Sociology Basic Concepts*. Jaipur: Rawat Publications,
3. Shankar Rao, C N (2007). *Sociology: Principles of Sociology with an Introduction to Social Thought*. New Delhi: S Chand & Co Ltd.
4. Vidya, Bhushan., Sachdeva, D.(2005). *Introduction to Sociology*. Allahabad: Kitab Mahal.
5. Misra, S K and Puri, V K, (2004). *Indian economy: its development experience*. Mumbai: Himalaya publishing house.
6. Datt, Rudder and Sundharam, K.P.M. (2008). *Indian economy*. New Delhi: S Chand.
7. Hurlock, Elizabeth B. (1996). *Developmental Psychology-a life span approach*. Tata New Delhi: Mcgraw-Hill Publishing Co.Ltd.
8. Hutchison, E. (2007). *Dimensions of Human Behavior: Person and Environment*. Thousand Oaks: Sage Publications, Inc.
9. Morgan, C.T., King, R.A., Weisz, J.R., & Schopler, J (2004) *Introduction to Psychology*. New Delhi: Tata Mc Graw-Hill book Co.
10. Zastrow, C. & , K. (2010). *Understanding Human Behavior and the Social Environment*. Chicago: Nelson-Hall.

Semester II

Paper VI Social Work Research

Teaching hours- 45 hrs

Credits: 4

Objectives

- To understand the nature and importance of the scientific method.
- To apply principles of social work research in definition and solution to social problem.
- To develop the research capacity to conceptualize and execute research projects.

21 | With effect from 2019-20 Batch onwards.



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- To build technical competence to assess and analyze social problems, needs and services.

Unit-I

(9 hrs)

Introduction to Social Work Research

Scientific Inquiry – Meaning, assumption. Research- Concepts and constructs, variables, conceptual and operational definition - Social Work Research: Definition and objectives, functions and limitations - Scope of Social Work Research in India.

Hypothesis- Meaning, Importance, types, uses and requirements - Testing of Hypothesis – Type I & Type II Error.

Unit-II

(9 hrs)

Research, Design and Sampling

Basic research questions, Problem formulation in research.

Types of Research Design – Exploratory, Descriptive, Experimental, and Participatory Research – Case Study as a research design as well as tool of data collection.

Sample and population – Sampling principles and methods – Probability & Non Probability Sampling – Errors in Sampling

Qualitative research: Characteristics & Tools: Focus Group Discussion, Ethnography, In-depth / Key Informant Interviews.

Unit-III

(9 hrs)

Data Collection: Sources, Types and Tools

Definition - Types - Primary and Secondary, Quantitative and Qualitative data, their limitations. Secondary data- Problems in the use of secondary data

Methods / tools of data collection: Observation - structured and unstructured - participant and non - participant observation.

Questionnaire - meaning – Construction, Interview & Interview schedule - types and process.

Measurement Scales: Nominal – Ordinal – Interval – Ratio. Scaling Techniques/ methods: Definition - Scaling methods: Comparative Scales: Paired Comparison Scaling, Rank Order Scaling, Constant Sum Scaling, Q-Sort Scaling. Non comparative Scales: Continuous Rating Scale, Itemized Rating Scale - Attitude Scale: Lickert scale and Semantic differential - Concept of validity and reliability - Importance of Pre - test

Unit-IV

(9 hrs)

Data Processing and Presentation

Processing of data - Content checking, editing of data and Classification, Coding, tabulation of data.

Computer Applications Presentation - diagrammatic and graphic presentation of data.

Content of Research report, References - Bibliography. Writing Research proposals, writing research abstracts, Thesis writing.

Unit-V

(9 hrs)

Statistical Tools and Their Use

Statistics: definition, importance, uses, functions and limitations. Measures of Central tendency - Arithmetic Mean, Median, Mode. Measures of Dispersion- range, quartile, Standard Deviations - Chi square test - uses and applications. Normal Curve and Degrees of Freedom -



Use of modern methods of statistical techniques: Definition and concept of SPSS – Brief Introduction to software of Python & R – Programming Language for statistical analysis – Use of Computers and I T in Social Science Research

References

1. Babbie, E. (2001), "The Practice of Social Research" Thomson Learning Academic Resource Center.
2. D.K. Lal Das, (2004) "Practice of Social Research" Rawat Publications, Jaipur.
3. Research Methodology: Methods and Techniques C. R. Kothari- September 2013- New Age International Publishers.
4. Research Methods for Business: A Skill Building Approach- Uma Sekaran, Roger Bougie – 2010 – John Wiley & Sons, New Delhi.
5. Research Methodology: A Step-by-Step Guide for Beginners- Ranjit Kumar – 2010- Sage Publications, New Delhi
6. Research Methodology- R. Panneerselvan – 2004- Prentice Hall of India Pvt Ltd, New Delhi
7. Research Methodology -Khan – 2011- APH Publishing Corporation, New Delhi.
8. Research Methodology - D K Bhattacharyya – 2009 – Excel Books, New Delhi.
9. Yin, K.Robert (2009): Case Study Research: Design and Methods, 4th.Edition, Sage Publication, New Delhi

Semester II Paper VII Working with Communities

Total Hours : 45 hrs

Credits: 4

Objectives

- To develop an understanding of the concepts related to working with Community
- To gain knowledge of various approaches, Skills and techniques of working with Communities.
- To understand social Action as a method in solving social problems in the community.

Unit I

Analysis of Community

(9 hrs)

Concept of Community - Definition, Sociological concept of Community, Community as a social system, subsystems in the community, types of communities and their characteristics - Rural, Urban and Tribal communities.

Community Power Structure: Concept of Power, Dimensions of community power relevant to community organisation.

Community Dynamics : Integrative and disintegrative forces, Participative groups and Gender Empowerment.



Research Methodology

(50 Hours)

Objectives (50 Hours)

To understand the nature and importance of the scientific method and appreciate the principles of HRM research. To develop the capacity to independently conceptualize a problem and execute research. To develop technical competence to assess and analyze problems, needs and services in the field of HRM.

S NO	CONTENT	HOURS	OUTCOME
1	Research meaning, scope and objectives – types of research and research design - exploratory, descriptive, experimental, explanatory / Diagnostic Design - Case Study as a method of research and tool of data collection. Problem- definition - research problem - Relevance of research for decision making in various functional areas of management. Qualitative Research: Definition, Characteristic features, and Tools: InDepth Interview, FGD and Ethnography.	10	CO 1
2	Hypothesis – Concepts, Meaning, Importance, Types, Uses and Requirements-Testing of Hypothesis. Variable – Definition and understanding. Sample and Population – Principles of Sampling - Sampling techniques and sample size determination for research	10	CO 2
3	Data – Definition-Types- Primary and Secondary data- Merits and Limitations. Data collection – Tools of Data Collection: Observation, Questionnaire & interview schedule. Scales of measurement / Types of Scales: Nominal, Ordinal, ratio, interval. Concept of Validity and Reliability. Scaling techniques: comparative and noncomparative scales (Continuous – itemized, rating, staged/attitudinal scale and its types)	10	CO 3



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Data analysis - Editing and coding of data- Univariate, bivariate, multivariate analysis - Chi-Square test – Correlation and regression analysis, multiple regression analysis – Single and two factor analysis of variance (ANOVA) Application and use of statistical tests – Parametric t-test (t – test) and non-parametric - Interpretation of test results.	10	CO 4
Presentation of Research Results: Tabulation – need, nature and guidelines – Ungrouped and grouped frequency tables, charts and diagram- Organizing a research report: Use of executive summary, appendix and bibliography.	10	CO 5

References

1. Babbie, E. (2001), "The Practice of Social Research" Thomson Learning Academic Source Center.
2. D.K. Lal Das, (2004) "Practice of Social Research" Rawat Publications, New Delhi.
3. Research Methodology: Methods and Techniques C. R. Kothari- September 2013- Age International Publishers.
4. Research Methods for Business: A Skill Building Approach- Uma Sekaran, Roger Bougie – 2010 – John Wiley & Sons, New Delhi.
5. Research Methodology: A Step-by-Step Guide for Beginners- Ranjit Kumar – 2010- Sage Publications, New Delhi.
6. Research Methodology- R. Panneerselvam – 2004- Prentice Hall of India Pvt Ltd, New Delhi.
7. Research Methodology -Khan – 2011- APH Publishing Corporation, New Delhi.
8. Research Methodology - D K Bhattacharyya – 2009 – Excel Books, New Delhi.



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Core Paper -7 :Communication Research Methods

Unit 1

Foundations of Communication Research :Definition ,Nature and scope of communication research . Elements of research-epistemology, theoretical framework.Process and types of research.Significance of research.

Unit 2

Types of research design. Hypothesis.Concepts in research.Variables, units of analysis.Validity, Reliability, error factor.

Unit 3

Sampling.Types of sample.Probability and Non- probability.Sampling problems.Sample error.Choosing a sample design.Data Analysis.

Unit 4

Data Collection methods.Primary data and secondary data.Types of secondary data.Survey data, observation data.Questionnaire method.Structured and non- structured.Telephone and personal interviews.Questionnaire construction methods.

Unit 5

Research Application : print media, electronic media, advertising, public relation and new media. Research institutions.scope in media research; funding agencies. Writing a research report and evaluation of research. Legal and ethical issues.

References :

Wimmer, Rogar D and Dommick, Joseph R(1994). Mass Media Research: An Introduction (Fourth Edition Wadsworth Publishing Company)

Berger, Arthur Berger (2000). Media and Communication Research Methods.An Introduction to Qualitative and Quantitative Approaches. Sage Publications

Priest, Susama Horning (1996): Doing Media Research: An Introduction (Sage Publications)

Lewis-Beck, Michael S (ed) (1994) Experimental Design Methods. International handbook of Quantitative Applications in the Social Sciences (Sage Publications)

Kumar, Ranjit. Research Methodology: A Step by Step Guide for Beginners (Sage Publications)

Blaxter, Loraine. Huges, Christina and Tight, Malcolm (1996) How to research (Open University Publications)



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May, Tim: Social Research Issues, Methods and Process (2nd edition, Open University Publication)

Crotty, Foundations of Social Science Research (Sage Publications)

Smith, Mark .J, Social Science in Question Towards a Post-disciplinary Framework (Sage Publications)

Hammersley, Martyn. The Politics of Social Research (Sage Publications)

Miller, Delbert C (1983) Handbook of Research Design and Social Measurement, (Fourth Edition Longman)

De Vaus, D.A (1986) Surveys in Social Research (Sage Publications)

Young, Pauline V (1966) Scientific Social Surveys and Research (Printice-Hall, India, EEE 4th edition)

Krishnaswami, O R, (1993) Methodology of Research in Social Sciences (Hamalaya Publishing House)

Silverman David; Qualitative methodology and sociology. Describing the social world(Gower Publication 1985)

Denzin, Norman and Lincoln, Yvonna (Ed) Handbook of qualitative research chapter 8,11,15,16,17,35. (Sage Publication 1994)

Lindof, Thomas R(1995) Qualitative Communication Research Methods



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RESEARCH METHODOLOGY

Course Code : 03413	Credits : 05
L:T:P:S : 5:0:0:0	CIA / ESE Marks: 40 /60
Exam Hours : 03	Teaching hours: 90

Learning Objectives:

1. To acquire basic knowledge about research and its approaches.
2. To equip students in carrying out a research project
3. To familiarize the students to present their research findings.

Unit - I:

Nature and scope of social research, Aims, objectives, nature of theory and data, relevance to social research (15 hours)

Unit - II:

Stages of research, selection of problem, formulation of problem, theoretical problem, formulation of hypothesis, research design (15 hours)

Unit - III:

Data collection, technique, observation, schedule, questionnaire, interview methods, Social Survey, importance and scope of social survey, preparation of budgets, staff and its training (25 hours)

Unit -IV: Analysis of data, editing, processing, consolidation and tabulation, application of techniques, scaling techniques (15 hours)

Unit - V:

Research presentation, organization of research presentation, aims and objectives, effectiveness in the presentation of statistical data, rules for arrangement of text, diagrams, references .(20 hours)

RECOMMENDED TEXT BOOKS:

1. Kothari CR Research Methodology & Techniques, New Age International Pvt Ltd 2016
2. Ravi Lochanan; Research Methodology, Margham Publications ,2019

REFERENCE BOOKS:

1. John W Creswell ;Craft of Research , University of Chicago Press, 4th edition
2. Gregory and Joseph M Williams; Research Design Qualitative and Quantitative and Mixed method approach , Sage Publications, 5th Edition


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ONLINE REFERENCES:

1. https://www.researchgate.net/publication/303381524_Fundamentals_of_research_methodology_and_data_collection
2. https://www.ncadcmia.edu/35386086/BOOK_REVIEW_FUNDAMENTALS_OF_RESEARCH_METHODODOLOGY_AND_STATISTICS

COURSE OUTCOME:

On completion of the course, student will be able to:

CO1	Identify and select social research methods
CO2	Outline stage of research and research design
CO3	Apply appropriate data collection and compile data for analysis
CO4	Outline data analysis techniques
CO5	Prepare and present research findings in standard format

Mapping of CO v/s PO:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	2	2	1	1	3	3	2
CO2	1	2	3	2	3	3	2
CO3	2	2	2	2	3	3	2
CO4	1	1	1	1	3	3	2
CO5	2	2	2	3	3	3	2

Correlation levels: 1- Weak 2-Medium 3-High

Mapping of CO v/s PSO:

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	2	2	3	3	2	2
CO2	2	2	2	2	2	2
CO3	1	2	3	2	2	2
CO4	1	2	3	3	2	2
CO5	2	2	2	1	2	1

Correlation Level: 1-Weak, 2-Medium, 3-High

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CONTENTS OF MODULE/UNITS		Hrs	Cos
1	Nature and scope of social research, Aims, objectives, nature of theory and data, relevance to social research	15	CO1
2	Stages of research, selection of problem, formulation of problem, theoretical problem, formulation of hypothesis, research design.	15	CO2
3	Data collection, technique, observation, schedule, questionnaire, interview methods, Social Survey, importance and scope of social survey, preparation of budgets, staff and its training	25	CO3
4	Analysis of data, editing, processing, consolidation and tabulation, application of techniques, scaling techniques	15	CO4
5	Research presentation, organization of research presentation, aims and objectives, effectiveness in the presentation of statistical data, rules for arrangement of text, diagrams, references.	20	CO5



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[Affiliated to University of Madras]

Post Graduate & Research Department of Commerce
II YEAR M.COM

Semester – III

Core Paper IX - RESEARCH METHODOLOGY

OBJECTIVE:

To impart in-depth insight on various methods used in Research

UNIT I

Research – Meaning, objectives, motivation, utility – characteristics of scientific method – theory, empiricism, deductive and inductive approaches – language, concepts, construct, definition, independent & dependent variables – Research process/ Steps – Problem identification – formulation of research question – Review of literature.

UNIT II

Types of research – pure and applied, survey, case study, analytical, conceptual – Qualitative and quantitative research- Research Design – importance – features of a good research design – exploratory, descriptive and experimental design.

UNIT III

Hypothesis – qualities of a good hypothesis – null hypothesis & alternative hypothesis, hypothesis testing – logic & importance – Methods of data collection – primary and secondary data- observation – interview- questionnaire – Sampling- statistical population, sample, sampling frame, sampling error, sample size, non response- characteristics of a good sample – probability and non probability, sampling techniques.

UNIT IV

Levels of measurement – nominal, ordinal, interval and ratio scales – problems in measurement – testing validity and reliability – pilot study and pre-testing – Processing and analysis of data- editing – coding – transcription – tabulation – univariate, bivariate and multivariate analysis – use of computer software.

UNIT V

Report writing - target audience -types of reports -contents of reports - Title page, Abstract, Introduction, Methodology, Result, Discussion, References, and Appendices – styles and conventions in reporting – ethical considerations – plagiarism, paraphrasing, quotations and footnotes.

PART A – Answer any 10 out of 12 (10 x 2 = 20)

PART B – Answer any 5 out of 8 (5 x 5 = 25)

PART C – Answer any 3 out of 5 (3 x 10 = 30)

COURSE OUTCOME:

The course provides in-depth insight on the various methods used in research.

RECOMMENDED TEXTS

1. William C Emory, Business Research Methods, Richard D Irwin, NJ,
2. Donald R Cooper, Business Research Methods 7th Ed, McGraw Hill, 2001
3. Krishnaswami OR, Methodology of Research for Social Science, Himalaya, Mumbai, 2001.
4. Anderson J. et.al, Thesis and Assignment writing, Wiley Eastern
5. Research Methodology by Ravitochanan

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Core Paper -7 :Communication Research Methods

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Sampling.Types of sample.Probability and Non- probability.Sampling problems.Sample error.Choosing a sample design.Data Analysis.

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Data Collection methods.Primary data and secondary data.Types of secondary data.Survey data, observation data.Questionnaire method.Structured and non- structured.Telephone and personal interviews.Questionnaire construction methods.

Unit 5

Research Application : print media, electronic media, advertising, public relation and new media. Research institutions.scope in media research; funding agencies. Writing a research report and evaluation of research. Legal and ethical issues.

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- Hammersley, Martyn. The Politics of Social Research (Sage Publications)
- Miller, Delbert C (1983) Handbook of Research Design and Social Measurement, (Fourth Edition Longman)
- De Vaus, D.A (1986) Surveys in Social Research (Sage Publications)
- Young, Pauline V (1966) Scientific Social Surveys and Research (Printice-Hall, India, 4th edition)
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- Silverman David; Qualitative methodology and sociology. Describing the social world(Gower Publication 1985)
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