

Mahatma Gandhi University, Meghalaya
Ph.D. Course Work Syllabus
Education-2024

S. No.	Paper Code	Paper Name	Credit
1.	Edu-101	Research Methodology	4 credits
2.	Edu-102	Review of Literature	2 credits
3.	Edu-103	Computer Applications	3 credits
4.	Edu-104	Advanced Paper of Education	3 credits
5.	Edu-105	Research Publication and Ethics	2 credits
6.		Total Credit	*14 Credits

***As per Regulation Minimum 12 Credits are required.**

Paper I: Research Methodology- 4 Credits

Course Objectives

1. Provide foundational knowledge of research concepts, processes, and designs.
2. Differentiate between qualitative and quantitative research methods and their applications.
3. Equip students with tools and techniques for data collection and sampling.
4. Introduce statistical techniques for data analysis, hypothesis testing, and interpretation.
5. Develop skills in presenting research findings through reports, proposals, and graphical representations while emphasizing ethical considerations.

Unit I

Definition, Concept, Types, Importance, of Research, Formulation of Research problem, Research process, Research design.

Unit II

Qualitative and Quantitative research, Measurements of Scales, Sampling Vs Census, Types of samples; Probability and Non Probability methods.

Unit III

Data collection tools; Primary Data; Observation, Questionnaire, Interview Schedule and Interview and Secondary Data.

Unit IV

Hypothesis, Types of Hypothesis, Testing of hypothesis, , Test of significance for small and large samples, Parametric and Non-parametric tests.

Unit V

Application of Statistical techniques in Research, Measures of central Tendency, Dispersion, Simple correlation, Simple Regression, Normal Distribution, Skewness

Unit VI

Diagrammatic and Graphical presentation
Report Writing, Research Proposal, Ethics in Research and Presentation Techniques

***Note: Subject wise Research Methodology will be taught with Respective Papers.**

References:

1. Kothari, C. R., & Garg, G. (2019). *Research methodology: Methods and techniques* (4th ed.). New Age International Publishers.
2. Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.
3. Kumar, R. (2020). *Research methodology: A step-by-step guide for beginners* (5th ed.). SAGE Publications.
4. Kinnear, P. R., & Gray, C. D. (2010). *SPSS for Windows made simple* (6th ed.). Psychology Press.
5. Babbie, E. (2020). *The practice of social research* (15th ed.). Cengage Learning.

Paper II: Review of Literature- 2 Credits

Paper III – Computer Applications- 3 Credits

Course Objectives:

1. Provide foundational knowledge of computers, including their configuration, types, hardware, software, and networks.
2. Equip students with practical skills in widely used applications like MS Word, MS Excel, and MS PowerPoint for academic and professional tasks.
3. Introduce SPSS as a tool for statistical data analysis in research.
4. Develop the ability to use computer applications for data presentation, research, and effective communication.
5. Foster understanding of the role of computers in social science research and ethical considerations in their application.

Unit I: Introduction: Basics of Computer

What is Computer?, Computer Block Diagram, Generations, Languages, Characteristics of a Computer, Benefits, Types of a Computer, Configuration of a Computer System, Hardware & Software, Operating System & its Functions, Input Devices, Out Put Devices, Memory, Number System, Binary, Decimal, Octal, Hexadecimal, Compiler, Interpreter, Introduction of Computer Networks, Network Models, Introduction of Database, Role of Computer in Social Science Research & Word Processor.

Unit II: MS-Word

Basics:- New, Open Save, Save As, Cut, Copy, interface, Paste, Paste Special, Format Printer Operations, Style, Size, Font, Subscript, Superscript.

Insert:-Hyperlink, Header, Footer, Page Number, Table, Chart.

Page Layout:-Page Setup, Margins, Orientation, Watermark, Indent, Spacing.

References:-Footnote, Endnote, Citations & Bibliography, Captions.

Mailings:-Mail Merge, Review:-Spelling & Grammar, Thesaurus, Comment, Compare, Protect Document, View:-Document Views, Show/Hide, Zoom, Windows

Unit III: MS-Excel

Basic:- Cell, Worksheet, Workbook, interface, spreadsheet, rearranging workbook, New, open, save, save As, Cut, Copy, Paste, Paste Special, Size Font, Find, Replace, page Setup, page security, Printing options, Page setting, Orientation, Size Wrap text, Merging of cells and columns, sorting, formulas, filtering, tables, charts, working with functions.

Unit IV: MS Power Point

Basic:- New, open, save save As, Cut Copy, interface, Paste, Paste Special, Size, Font, Numbering & Bullets, Margin, Find, Replace, Slides, Slides Layout, Designs, Slide Setup

Animation: - Different types of animations apply on the Slides, text, objects, Different custom animations, Entrance, Emphasis, exit, motion path. Set Slides Navigations on mouse click, automatic, manual.

Slide Show: - Slide show, Custom Slide show, Slide sorter.

Unit V: SPSS

SPSS Introduction, Windows:-Data Editor, Output Viewer, Syntax Editor, Script Window, Method of Preparing Data Sheet and Entering Data, SPSS Importance in Research.

References:

1. Sinha, P. K., & Sinha, P. (2020). *Computer fundamentals* (6th ed.). BPB Publications.

2. Nelson, S., & Walkenbach, J. (2021). *Microsoft Excel 365 Bible: The Comprehensive Tutorial Resource* (3rd ed.). Wiley.
3. Lambert, J., & Frye, C. (2021). *Microsoft Word Step by Step* (1st ed.). Microsoft Press.
4. Pallant, J. (2020). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS* (7th ed.). Routledge.
5. Shufflebotham, M., & McFarland, S. (2021). *Microsoft PowerPoint Step by Step* (1st ed.). Microsoft Press.

Paper IV: Advance Paper of Education- 3 Credits

Objectives of the Course:

1. To understand the indispensable role of Philosophy and Sociology in Education.
2. To initiate scholars to the process of critical reflection of texts pertaining to Education.
3. To acquaint them about the ideas of thinkers in the realm of Education.
4. To develop a critical understanding of the relationship of Education in the context of Interdisciplinary in research.
5. To understand the need of assessment, standards, and management in Education System
6. To understand the need of assessment, standards, and management in Education System

Unit –I Philosophical and Sociological Perspectives

1. Philosophical Foundations of Research - Speculative, Analytic, Prescriptive and Normative
2. Philosophical Methods: Analysis, Synthesis, Induction, Deduction
3. Sociological Foundations of Research

Unit-II Social change and Education

1. Social change and its implication on Education and Society
2. Recent social development and their impact on Society and Education
3. Social Stratification and its impact on Society and Education

Unit-III Foundations of Educational Technology

1. Impact and use of Educational Technology
2. Approaches and Applications of Educational Technology
3. Promotion of Information and Communication Technology in Education

Unit-1V: New Knowledge Pedagogies and approaches in Educational Research

1. Ensuring Learning out-come in Elementary Education, secondary and senior secondary Education
2. Comprehensive Education – Ethics, Physical Education, Theory and Practice of Yoga and Life Skills and Value based Learning
3. Recent trends in Teacher Education and Present Scenario - Teacher Education programmes in India with reference to pre service and in-service Teacher Education programme
4. Total Quality Management: Concept-indicators of quality, setting standards for performance, Assessment and accreditation in Education, Role of ISO, QCI and NAAC
5. Issues and Policy change at National and State level affecting Indian Education with reference to RTE, SSA(UEE), RMSA, RVSA and other related national and state level Educational Schemes, implementation and monitoring

References:

1. Brubacher (1950) Modern Philosophies of Education, McGraw Hill Book Co. Newyork
2. Kumar Krishna (2004) What is Worth teaching/ 3rd Edition Orient Longman
3. Giroux Henry (2011) On Critical Pedagogy, Continuum Press.
4. Govt. of India (1952) Report of the Secondary Education Commission, New Delhi
5. Govt. of India, MHRD (1986, Revised 1992) National Policy of Education, New Delhi.
6. Govt. of India, MHRD (1992) Programme of Action (Draft) New Delhi, Aravali Printers and Publishers.
7. Paulo Freire (1996) Pedagogy of the Oppressed, Penguin Books.
8. Mani R S (1964) Educational Ideas and Ideals of Gandhi and Tagore, New Book Society New Delhi.
9. Noddings Nel (2012) Philosophy of Education, West View Press.
10. Desai D.M.: New directions in the Education of Indian teachers Baroda, M.S. University, 1971.
11. Gupta Arun K.: Teacher Education: Current & Prospects New Delhi, Sterling Publications 1984.
12. India, Ministry of Education; Report of the Education Commission (1964-66) Education & National development New Delhi publication division 1966.
13. Jangira N.K.: Teacher training & teacher effectiveness an experience in teacher, behavior, New Delhi, National Publishing House, 1979.
14. NCF 2000, NCF 2005-NCERT Publication, New Delhi.
15. NCFTE-2009-NCTE Publication, New Delhi.
16. UNESCO: Regional office for Education in Asia, Bangkok, Exploring, New dimensions in Teacher Education, Bangkok, UNESCO, 1976:
17. UNESCO: A System approach to teaching & learning procedures a guide for teacher Educators, Paris: UNESCO, 1981.

Paper V: Research Publication and Ethics- 2 Credits

Course Objectives

1. Provide an understanding of the philosophical foundations of research ethics and its relationship with science.
2. Equip students with knowledge of scientific conduct, integrity, and ethical practices in research.
3. Develop awareness about publication ethics, including best practices, standards, and the importance of integrity in academic publishing.
4. Familiarize students with open-access publishing, copyright issues, and ethical dilemmas in various disciplines.
5. Enable students to understand and apply citation metrics, indexing databases, and tools for quality research assessment.
6. Promote adherence to UGC Regulations 2018 on academic integrity and awareness of legal provisions related to research ethics.

Unit I: Philosophy and Ethics

1. Introduction to Philosophy
2. Origin of Philosophy
3. Characteristics of Philosophy
4. Common sense and Philosophy
5. Relationship between Philosophy & Science

Unit II: Scientific Conduct

1. Integrity and Ethics
2. Ethics with Respect to Science & Research
3. Intellectual Honesty & Research Integrity: Scientific Misconducts & Redundant Publications
4. Selective Reporting and Misrepresentation of data

Unit III: Publication Ethics

1. Publication Ethics,
2. Best Practices/Standards Setting
3. Initiatives & Guidelines: COPE, WAME etc.
4. Conflict of Interest; Publication Misconduct
5. Violation of Publication Ethics, Authorship and Contributorship;
6. Identification of Publication Misconduct, Complacent & Appeals
7. Predatory Publishers & Journals

Unit IV Open Access Publishing and Publication Misconduct

Open Access Publishing

1. Concept of OER
2. Concept of open license
3. Open access publishing
4. Open access content management

Publication Misconduct

1. Ethical issues in various Disciplines
2. Fabrication, Falsification and Plagiarism (FFP)
3. Authorship : Definition and types
4. Conflict of Interest
5. Complaints and Appeals
6. Software Tools

Unit V: Database and Research Metrics

1. Indexing Databases
2. Citation Databases: Web of Science, Scopus, Google Scholar
3. Metrics: h-index, g-index, i10 index, Almetrics
4. Understanding Citation Metrics for Quality Research: Impact & Visualization Analysis
5. Exploring the Citation Network
6. Rules & Tools

UGC Regulations 2018 on Academic Integrity: UGC Regulations-Meaning & concept
Legal Provisions

References:

1. Bird, A. (2006). Philosophy of Sciences. Routledge
2. MacIntyre, Alasdair (1967). A Short History of Ethics. London
3. P.Chandah. (2018). Ethics in Competitive Research: Do not get scooped; do not get plagiarized.
4. National Academy of Sciences, National Academy of Engineering and Institute of Medicine (2009)., National On being a Scientist: A guide to responsible conduct in Research : third edition, National Academies Press