



Hemchandracharya North Gujarat University, Patan

PH.D. COURSE WORK SYLLABUS

SUBJECT : EDUCATION

Scheme & Course

Sr.	Paper	Nomenclature	Credits	Marks
1.	Paper-I-EDU-CW-101	Research Methodology	04	70+30
2.	Paper-II-EDU-CW-102	Advance Course in Education	04	70+30
3.	Paper-III-EDU-CW-103	Computer Applications to the subject	04	70+30
4.	Paper-IV-EDU-CW-104	Review of published research in the relevant field	04	70+30
5.	Paper-V-EDU-CW-105	Comprehensive Viva	04	100

Notes:

- The candidate has to obtain a minimum of 55% of marks or its equivalent grade points in aggregate in the course work in order to be eligible to continue in the Ph.D. programme.
- If candidate obtains 'F' or 'Ab.' grade in the course/ subject. He/ she will be treated to have failed in that course. He/ She has to reappear in the examination in the next semester.

Paper-I	EDU-CW-101	Research Methodology	Credit-4 (70+30)
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PART: A

Unit-I Research in Education

- Essential Characteristics of Science and Scientific Method.
- Definition of Research & Educational research,
- Qualitative & Quantitative Research: Meaning, Definition Characteristics and Need.

Unit-II Descriptive Research

- Meaning, Definition, Characteristics, Nature of Descriptive Research and types.
- Survey: School Survey, Community Survey, Opinion Survey, Job Analysis survey and Document Analysis.
- Inter-Relation Studies : Correlation – Prediction Study, Causal-Comparative Study.
- Developmental Study : Growth Study-Longitudinal & Cross Sectional Study, Follow up and Trend Study.

Unit-III (a) Experimental Research

- Experimental Design : Definition, Characteristics, Methods of control.
- Types of Experimental Design : Pre, True and Quasi experimental design.
- Internal and External Validity of Experimental design.

(b) Qualitative Research Approaches :

- Ethnography
- Phenomenology



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- Naturalistic Enquiry,
- Historical,
- Case Studies,
- Philosophical research,
- Analysis of Qualitative Data

Unit-IV Sampling and Tools:

(a) Sampling

- Population and Sample,
- Importance of Sampling, Sampling Unit, Sampling Frame, Sampling Error & Bias,
- Probability & Non Probability Sampling, Methods and Sample Size.

(b) Tools & Process of development of tools :

- Tools of Measurement.
- Characteristics of Tools, Reliability, Validity, Sensitivity,
- Types of Tools-Test, Scale, Interview, Schedule, Observation Schedule and Questionnaire.
- Steps of Developing Tools and standardization.

Unit-V Planning of Good Research

(a) Preparing of Research Proposal

- Formulation of the problem of research – Sources, Specification.
- Review of related literature, identifying the emerging trends from the review, building a strong rationale for selecting the problem.
- Practice of formulate the 'Problem' related to the area of interest of the researcher (it will include the exercise of writing the titles with various statements and getting it modified for correctness).
- Formulations of Objectives – Specifying Objectives and hypotheses of the Study.
- Choosing appropriate design and the procedure (Selecting appropriate methods)
- Instruments/tools/techniques, deciding about the Subjects for the study, conditions for conducting the study including procedures of data collection and data-processing) Operational definitions of the concepts and terms used (with the statements of underlying assumptions, perceived limitations and specific delimitations of the study).

(b) Report Writing – General Guidelines:

- Format of Research Report (Journal Article, Thesis and Dissertation, Paper at Professional Conferences) Preparation of the Manuscript.
- Writing style
- Bibliography and References, APA Reference style
- Preparation of summary and abstract
- Evaluating and Finalizing the Report (Including the process of converting dissertations and theses for publication as a journal article)
- Research Ethics, Steps to avoid plagiarism in Research



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PART: B

- Unit-I**
- Scales of Measurements: Nominal, Ordinal, Interval & Ratio.
 - Statistics permissible at each level of measurement. Scales-Parametric & Non-Parametric tests : Underlying assumptions, considerations for deciding appropriateness of Statistical tests.
- Unit-II**
- The Concept of Hypotheses testing: Null hypotheses, Alternative hypothesis: Directional & Non-directional hypothesis, One & Two tailed tests.
 - Significance of Statistics in terms of critical value & probability, Errors in hypothesis testing : Type I and II errors.
- Unit-III**
- One way ANOVA, Post Hoc tests of Varying powers, Two way ANOVA with equal and unequal cell size,
 - One & Two way ANOVA of equal & unequal cell size.
- Unit-IV**
- Non Parametric statistics : Mann Whitney test, Wilco test, Signed Ranks test, Chi Square test-one ant two samples.
- Unit-V**
- Use of SPSS in Data Analysis: Data entry, testing underlying assumptions, running the tests, editing and exporting the output, writing interpretation.

Paper-III	EDU-CW-103	Advance Course in Education	Credit-4 (70+30)
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- UNIT-I :** (a) Educational Studies; Philosophical Perspective of Education-Indian and Western Philosophy.
(b) Sociological Perspective of Education.

UNIT-II : Education Policy : Committees and Commissions,

Contribution to Teacher Education–Secondary Commission (1953), Kothari Education Commission (1964-66), National Policy of Education (1986,1992), National Knowledge Commission (2007), Yashpal Committee Report (2009), National Curriculum Framework for Teacher Education (2009), Justice Verma Committee Report (2012), National Education Policy (2020)

UNIT-III : Innovative Strategies of Teaching and Learning

- Learning Approaches: Behaviorist Approach, Cognitive Approach and Constructivist Approach.
- Organizing Teaching: Memory Level, Understanding Level, Reflective Level.
- Competencies of Self-directed Learning and Self dependent Learning (Atmanirbhar Adigem)
- Models and Strategies in teaching-learning process, Learning Styles, Cooperative learning Strategies, Flipped Learning Strategy, Self- Regulated Learning Strategies, Peer Tutoring, Instructional Scaffolding, Integrated Instructional Strategy.

UNIT-IV : Use of Technology in Learning and updating, e portals-

Paper-IV	EDU-CW-104	Computer Applications to the subject	Credit-4 (70+30)
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- Unit I :** Introduction to Computer System : Definition, Characteristics, Parts of Computer and their functions, Block Diagram of Computer System, Input and Output Devices, Operating System, Memory, Modern Components of different Hardware like laptop, tablet, smart Mobiles, Measure Application of Android.



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Unit II : **MICROSOFT WINDOWS** : An Overview of different versions of Windows, Features of Windows, Creating Folders and Short cut Icons. Saving, Copying and Deleting Files, Loading software. Uses of Note Pad, Calculator, Dictionary and Paint Brush. Word Processing-Saving, Closing, Opening an Existing Document, Selecting Text, Editing Text Finding and Replacing text, Creating and Printing Merged Documents, Character and Paragraph Formatting, Page Design and Lay Out.

Unit III: **MS EXCEL:** Creating Worksheet and use of Simple Commands,

Unit VI : **Presentation Package** : Creating, Opening and Saving Presentation, Working in Text, Views, Working with Slides, Adding and Formatting Text, Making Notes, Pages and Handouts, Designing Slides show, Running and controlling presentation, Printing Presentations. Uses of Multimedia during Presentation : Meaning, Graphics, Animation, Audio Images, Video Survey and Text.

Unit V : Use of Web Based Instruction : Designing, Advantages and Limitations. Use of Educational Software and CD's. Use of Computers in Library, Internet : Meaning, Online Surfing, Use of a e-mail, Chat. Use of Search Engines. World Wide Web-Access information, reliability to information Web Page and Home Page, Use of Internet in Teaching-Learning Process. Downloading Information, Uses and Abuses of Internet.

PRACTICAL ACTIVITIES:

- MS-WORD,
- MS-EXCEL,
- POWER POINT,
- INTERNET,
- USE OF 2G AND 3G TOOL

Paper-II EDU-CW-103 Review of Published research in the relevant field Credit-4 (70+30)

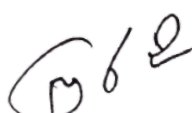
For this paper candidates will have to review literature in an area of research, prepare a research proposal and submit a report to the University at the end of the course work. The selection of the problem and preparation of the proposal will be in consultation with research guide.

Paper-V EDU-CW-105 Comprhensive Viva Voce Credit-4 (100)

Candidate will face a Comprehensive Viva-Voce of 4 credits on the subject of Research Methodology, Advanced Course in Education and literature review report submitted to the university. The Presentation will have to be made by the candidate and it will need to be prepared in consultation with research guide.

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