SHRI GURU RAM RAI UNIVERSITY

Patel Nagar Dehradun-248001, Uttarakhand
(Estd. by Govt. of Uttarakhand, vide Shri Guru Ram Rai University
Act no. 03 of 2017)

Syllabus
For
Ph.D. Course Work in Education
Effective from the Academic Session
2025-2026

School of Education
Shri Guru Ram Rai University
Dehradun, Uttarakhand

1. **Guidelines for Ph. D. Course Work in Education. The coursework is a prerequisite for Ph.D. preparation. The duration of the coursework will be one semester. The coursework shall be of 18 credits and shall consist of 05 courses.**
2. **Course Structure and the Assessment Scheme.**

Course	Course Code	Course Type	Course Title	L-P-T-D	Credit	Total marks (External + Internal)	Minimum marks to be scored for successful completion
1.	PRMC 101	CORE	Research Methodology	3:0:1:0	4	80 (60+20)	40
2.	RPEC 102	CORE	Research & Publications Ethics	2:0:0:0	2	40 (30+10)	20
3.	Ph.D-101	ELECTIVE (a/b/c) ANY ONE	a) Advanced concepts in Teacher Education b) Advance study in Guidance and Counseling c) Advanced Educational Technology Concepts (Subject Specific Elective Paper)	3:1:0:0	4	80 (60+20)	40
4.	Ph.D-102	CORE	Data Processing and Computer Applications (Subject Specific)	3:1:0:0	4	80 (60+20)	40
5.	Ph.D-103	CORE	Practicum / Seminar Presentation and Workshop (Subject Specific)		4	80(00+80)	40
TOTAL					18	360	180

PRMC-101 Paper-I: Research Methodology (Compulsory) 3-0-1-0 {4}

Course Objectives:

By the end of the course, the learners will be able to:

1. Understand the Foundations of Educational Research
2. Identify and Differentiate Types of Educational Research
3. Develop Skills in Research Planning and Proposal Writing
4. Apply Basic Methods in Educational Research
5. Select and Use Appropriate Tools and Techniques
6. Prepare and Present Research Reports

Course outcomes (COs):
Upon successful completion of the course, students will be able to

CO1	Understand and explain the meaning, nature, and scope of educational research and differentiate between various types of quantitative and qualitative research.
CO2	Critically analyze research as a process of acquiring knowledge and describe its relevance to educational inquiry.
CO3	Identify and apply the appropriate research designs and methods—including quantitative and qualitative paradigms—based on the nature of the research problem.
CO4	Formulate a research problem and construct research objectives, hypotheses, and operational definitions, while recognizing the rationale and significance of the study.
CO5	Analyse qualitative and quantitative data, and explain how evidence gathered supports or refutes an initial hypothesis.
CO6	Demonstrate skills in sampling techniques, hypothesis development and testing, and analysis of common errors in hypothesis testing.

Unit I: Conceptual Framework of Educational Research

- Research as a Process of Acquiring Knowledge
- Meaning, Nature and Scope of Educational Research
- Types of Educational Research: Quantitative Descriptive, Historical/Philosophical, Developmental, Casual comparative, Correlational, Experimental (Weak, true and quasi-experimental and Action Research.
- Qualitative Phenomenology, Ethnography, Case Study, Grounded Theory, Narrative Analysis. (Purpose, Characteristics, Steps with common errors committed in planning and conducting the research).

Unit II: Planning of Good Research/Preparing and Research Proposal

- Formulation of the problem for research (Sources, Specification, Forming Research Questions, problem-analysis procedures, evaluation of the Problem)
- Building Rationale for the Study (Review of related literature, identifying the emerging trends from the review, building a strong rationale for selecting the problem.
- Specifying objectives and hypotheses of the Study.
- Choosing appropriate design and stating 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).

Unit III: Basic Methods of Educational Research

- Sampling -Types and Techniques of Sampling
- Hypothesis and Testing of Hypothesis -Sources of Hypotheses -Type of Hypotheses (Null, Directional, Statistics) -Characteristics of a good hypothesis
- Hypothesis Testing and Theory -Errors in Testing Hypothesis

Unit IV: Tools & Techniques of Educational Research

- Tools, preparing, piloting and finalizing. -Tests, Tasks, Attitude Scales, Check lists, Questionnaires/ Opinionnaire, Interview Schedules for interview and observation, Inventory, Semantic Differentiate Scale. -Use of ICT
- Techniques Observation, Interview, focused Group Discussion,
- Ethnography, Document Study, Anecdotal. Role Play and Simulation, Case Study

Unit V: Report Writing

- General Guidelines: format, language style, bibliography and appendices

• Format of Research Report (Journal Article, Thesis and Dissertation, Paper at Professional Conferences)

• Preparation of the Manuscript • Writing style

References:

• Anfara, Vincent & Mertz Norma T. (2006). Theoretical Frameworks in Qualitative Research. SAGE Publication.

• Best J.W. (1986) Research in Education, New Delhi: Prentice Hall of India Pvt. Ltd.

• Borg, W.R. and Gall, M.D. (1983) Educational Research – An Introduction, New York, Longman, Inc.

• Booch, M.B. (1978) A Survey of Educational Research, CASE, The M.S. University Barodara.

• Broota, K.D., Experimental design in behavioural sciences, New age international publishing house, New Delhi.

• Chohan,L., Manion, L.& Morrison ,K. (2007) Research method in education (6th edition) Routledge ,London.

• Elliott, Jane (2005).Using Narrative in Social Research: Qualitative and Quantitative Approaches. SAGE Publication.

• Fraenkel, J.R., Wallen, N.E. (1983) How to Design and Evaluate Research in Education, Singapore: McGraw Hill, Inc.

• Gravetter. F.J. & Wallanau, C.B. (2002). Essentials of Statistics for the Behavioural Sciences (4th edition) Australia, Wodsworth.

• Grbich, Carol (2006). Qualitative Data Analysis: An Introduction. SAGE Publication.

• Gupta, Santosh (1983) Research Methodology and Statistical Techniques, New Delhi : Deep and Deep Publisher.

• Kerlinger, F.N. (1973) Foundations of Behavioural Research, New York : Holt, Rinehart and Winston.

• Kaul, Lokesh (1984) Methodology of Educational Research, New Delhi : Vikas Publications.

• Leary, M.R. (2004). Introduction to Behavioural research Methods (4th edition) Boston: Pearson Prentice hall

RPEC-102 Paper-II: Research & Publication Ethics (Compulsory) 2-0-0-0 {2}

Course Objectives:

By the end of the course, the learners will be able to:

1. To introduce the fundamental concepts, nature, and branches of philosophy and promote an understanding of how philosophical thinking influences ethical behavior and moral judgments.
2. To develop a critical understanding of ethics in scientific research, emphasizing intellectual honesty, research integrity, and the consequences of scientific misconduct including falsification, fabrication, and plagiarism (FFP).
3. To examine the principles and importance of publication ethics, familiarize learners with best practices and standards (COPE, WAME), and sensitize them to issues such as authorship, conflicts of interest, and unethical publication behavior.
4. To create awareness about open access publishing, including tools and initiatives that promote ethical and accessible dissemination of scholarly work, and methods to identify predatory journals.
5. To engage learners in discussions on real-life ethical dilemmas, publication misconduct, and the application of plagiarism detection tools like Turnitin, Urkund, etc., in upholding research integrity.
6. To familiarize students with scholarly databases and research metrics, such as Scopus, Web of Science, impact factors, h-index, g-index, and altmetrics, for evaluating the quality and visibility of research work.
7. To encourage responsible and ethical scholarly communication and writing, preparing students to conduct, report, and publish research that meets global academic standards.

Course Outcome:

1. To develop an understanding of research ethics, publications misconduct, and plagiarism.

2. To develop intellectual honesty and research integrity.

3. To identify various sources of information for databases and research matrices.

4. To develop an understanding of Open Access publications and initiatives.

5. Appreciate the components of scholarly writing and evaluate its quality.

Unit I-Philosophy and Ethics

Introduction to philosophy: definition, nature and scope, concept, branches. Ethics: definition of moral philosophy, nature of moral judgments and reactions.

Unit II-Scientific Conduct

Ethics with respect to science and research, Intellectual honesty and research integrity, Scientific misconducts: Falsification and Plagiarism (FFP), Redundant publication: duplicate and overlapping publication, salami slicing, Selective reporting and misrepresentation of data.

Unit III-Publication Ethics

Publication ethics: definition, introduction and importance, Best practices/standards setting initiatives and guidelines: COPE, WAME, etc. Conflicts of interest, Publication misconduct: definition, concept, problems that lead to unethical behavior and vice versa, types, violation of publication ethics, authorship and contributor ship, Identification of publication misconduct, complaints and appeals, Predatory publishers and journals Practice.

Unit IV-Open Access Publishing

Open access publications and initiatives, SHERPA / RoMEO online resource to check publisher copyright and self-archiving policies, Software tools to identify predatory publications developed by SPPU, Journal finder/journal suggestion tools viz. JANE, Elsevier journal Finder, Springer, Journal Suggester, etc.

Unit V-Publication Misconduct

Group Discussion, Subject-specific ethical issues, FFP, authorship, Conflicts of interest, Complaints and appeals: examples and fraud from India and abroad. Software tools, Use of plagiarism software like Turnitin, Urkund, and other open source software tools.

Unit VI-Databases and Research Metrics

Databases, Indexing databases, Citation databases: Web of Science, Scopus, etc., Research Metrics, Impact factor of the journal as per journal Citation report, SNP, SJR, IPP, Cite score, Metrics: h-index, g index, i10 index, altmetrics.

REFERENCES:

1. **Gutek, G. L.** (2014). *Philosophical, Ideological, and Theoretical Perspectives on Education* (2nd ed.). Pearson.
2. **Cahn, S. M.** (ed.). (2018). *Exploring Philosophy: An Introductory Anthology*. Oxford University Press.
3. **Rachels, J., & Rachels, S.** (2019). *The Elements of Moral Philosophy* (9th ed.). McGraw-Hill.
4. **UGC NET/JRF** Paper I materials on *Philosophy and Education*.
5. **National Academy of Sciences.** (2009). *On Being a Scientist: A Guide to Responsible Conduct in Research* (3rd ed.).
6. **Resnik, D. B.** (2020). *The Ethics of Science: An Introduction*. Routledge.
7. **ICMR Guidelines** (2022): *National Ethical Guidelines for Biomedical and Health Research*.
8. **Steneck, N. H.** (2007). *ORI Introduction to the Responsible Conduct of Research*. OUP.

Paper-III (a) Advanced Concepts in Teacher Education

(SUBJECT SPECIFIC PAPER) **3-0-1-0 {4}**

Course Objectives:

- **To trace the historical evolution and critically examine policy frameworks** shaping teacher education in India, with special reference to major commissions and reforms.

- **To develop a comprehensive understanding of pre-service and in-service teacher education**, identifying the key issues, challenges, and innovations in the preparation and continuous professional development of teachers.

- **To analyze national curriculum frameworks such as NCFTE 2009 and NEP 2020**, and explore their implications for reflective teaching practices and teacher education programs.

- **To promote awareness and understanding of teacher development models**, professional ethics, and the role of teacher educators in nurturing competent, committed, and ethical teachers.

- **To understand and critically evaluate the systems of assessment, accreditation, and quality assurance** in teacher education institutions, focusing on the roles of NAAC, NCTE, and other regulatory bodies.

Course outcomes (COs):

Upon successful completion of the course a student will be able to

CO1	Analyze the historical evolution and major policy frameworks shaping teacher education in India.
CO2	Critically examine the structure, implementation, and challenges of pre-service and in-service teacher education programs.
CO3	Interpret and evaluate curriculum frameworks like NCFTE 2009 and NEP 2020, and apply reflective teaching practices in professional contexts.
CO4	Demonstrate an in-depth understanding of teacher professional development, identity formation, and ethical responsibilities.
CO5	Assess quality assurance mechanisms, including assessment and accreditation processes by NAAC and NCTE, for improving teacher education institutions.
CO6	"Analyze the contributions of NGOs and government bodies in promoting and funding research initiatives."

Unit I: Evolution and Policy Frameworks of Teacher Education in India

- Historical development of teacher education in India (pre- and post-independence)
- Major commissions and their recommendations (e.g., Kothari Commission, NPE 1986, Yashpal Committee)
- Policy documents and reforms impacting teacher education (NCTE Act, RTE Act, NEP 2020)
- Paradigm shifts in teacher education over time
- Global trends and their influence on Indian teacher education

---

Unit II: Pre-service and In-service Teacher Education: Issues and Challenges

- Structure and types of pre-service teacher education programs (D.El.Ed, B.Ed, M.Ed)
- In-service teacher training models and strategies (DIETs, SCERTs, SSA, NISHTHA)
- Curriculum and pedagogical concerns in pre- and in-service programs
- Linkage between school and teacher education institutions
- Challenges: Quality, capacity building, institutional infrastructure, recruitment policies

---

Unit III: Curriculum Frameworks (NCFTE 2009, NEP 2020), Reflective Teaching

- Critical analysis of NCFTE 2009: vision, goals, and implications
- NEP 2020 and its implications for teacher education curriculum and structure
- Curriculum integration of foundational, preparatory, and continuous professional development stages
- Reflective teaching: concept, models (Schön's model), and role in teacher development
- Constructivist and learner-centered approaches in teacher education

---

Unit IV: Teacher Development and Professional Ethics

- Phases and models of teacher development (preparation, induction, professional growth)
- Professional competencies and standards for teachers
- Role of mentorship, internships, and practicum in teacher development
- Ethical considerations in teaching profession
- Code of conduct for teachers – NCTE and institutional frameworks

References

• NCTE **(2009)** – *National Curriculum Framework for Teacher Education (NCFTE)* – Available at: www.ncte.gov.in

• Ministry **of Education (2020)** – *National Education Policy 2020* – Available at: www.education.gov.in

• Sharma, S. P. (2015). *Teacher Education: Principles, Theories and Practices*. Kanishka Publishers.

• Rao, D. B. (2002). *Teacher Education in India*. Discovery Publishing House.

• Pathak, R. P. (2012). *Philosophical and Sociological Perspectives of Education*. Pearson.

• NCTE (2014). *Regulations and Norms for Teacher Education Programmes*. – Available at: www.ncte.gov.in

Paper-III (b) Advanced Study in Guidance and Counseling 3-0-1-0 {4}

(SUBJECT SPECIFIC PAPER)

The course aims to:

1. Provide an in-depth understanding of the philosophical and theoretical foundations of guidance and counseling.
2. Critically analyze various counseling approaches and their applicability in educational settings.
3. Equip scholars with knowledge of career guidance theories and techniques relevant to diverse learners.
4. Promote understanding of mental health concerns and the counselor's role in educational environments.
5. Familiarize scholars with tools, techniques, and ethical practices essential for professional counseling and research.

Course outcomes (COs):

Upon successful completion of the course a student will be able to

CO1	Understand the basic concepts, principles, and historical development of guidance and counseling
CO2	Apply appropriate counseling theories to address individual psychological and educational needs.
CO3	Design and implement effective career guidance and vocational counseling programs in academic settings.
CO4	Assess the importance of mental health and emotional well-being among students.
CO5	Uphold ethical principles in guidance and counseling practices, including

	confidentiality and informed consent.
CO6	Demonstrate the use of various counseling techniques and psychological tools for assessment.

Unit I: Fundamentals of Guidance and Counseling

- Concept, principles, and types
- Need and scope in educational settings
- Historical development in India and abroad

Unit II: Theories and Approaches of Counseling

- Directive, non-directive, eclectic
- Psychoanalytic (Freud), Humanistic (Rogers), Behavioral (Skinner), Cognitive (Ellis)
- Multicultural and ethical perspectives

Unit III: Career Guidance and Vocational Counseling

- Theories of career development (Holland, Super, Ginzberg)
- Techniques for vocational assessment
- Career guidance in schools and higher education

Unit IV: Mental Health and Well-being in Education

- Concepts of mental health and adjustment
- Stress, anxiety, depression – causes and management
- Role of teacher-counselor in promoting emotional well-being

REFERENCES

1. Kochhar, S. K. (1984). *Guidance and Counselling in Colleges and Universities*. Sterling Publishers.
2. Gibson, R. L., & Mitchell, M. H. (2008). *Introduction to Counseling and Guidance*. Pearson.
3. Rao, S. N. (2003). *Counselling and Guidance*. Tata McGraw-Hill.
4. Corey, G. (2013). *Theory and Practice of Counseling and Psychotherapy* (9th Ed.). Cengage Learning.
5. Venkatesh, M. (2006). *Guidance and Counseling: A Theoretical Perspective*. Discovery Publishing House.
6. Rogers, C. R. (1961). *On Becoming a Person: A Therapist's View of Psychotherapy*. Houghton Mifflin.
7. Freud, S. (1923). *The Ego and the Id*. W. W. Norton & Company.
8. Ellis, A. (1962). *Reason and Emotion in Psychotherapy*. Lyle Stuart.
9. Skinner, B. F. (1953). *Science and Human Behavior*. Macmillan.
10. Corey, G. (2013). *Theory and Practice of Counseling and Psychotherapy* (9th Ed.). Cengage Learning.
11. Sue, D. W., & Sue, D. (2012). *Counseling the Culturally Diverse: Theory and Practice*. Wiley.

12. Holland, J. L. (1997). *Making Vocational Choices: A Theory of Vocational Personalities and Work Environments*. Psychological Assessment Resources.

Paper-III (c) Advanced Educational Technology Concepts 3-0-1-0 {4}

(SUBJECT SPECIFIC PAPER)

Course Objectives:

- To provide an in-depth understanding of the historical evolution and foundational theories of educational technology.
- To critically analyze various instructional design models and their application in educational settings.
- To examine cognitive theories underpinning multimedia learning for effective instructional material design.
- To explore emerging educational technologies such as AR, VR, AI, MOOCs, and mobile learning, and their pedagogical implications.
- To understand and apply technology integration frameworks like TPACK and SAMR for effective use of technology in teaching and learning.

Course outcomes (COs):

- Upon successful completion of the course a student will be able to

CO1	Trace the evolution and understand the foundational principles of educational technology.
CO2	Analyze and apply various instructional design models for effective learning resource development.
CO3	Explain the principles of multimedia learning and cognitive theory to optimize instructional materials.
CO4	Evaluate and utilize emerging technologies such as AR, VR, AI, MOOCs, and mobile learning in educational contexts.
CO5	Apply technology integration frameworks like TPACK and SAMR to enhance teaching and learning processes.
CO6	Analysis, Design, Development, Implementation, Evaluation of educational technology models.

1. Evolution and Foundations of Educational Technology

- Definition and scope of Educational Technology
- Historical development: From audio-visual aids to digital technology
- Major theories influencing educational technology (Behaviorism, Cognitivism, Constructivism)
- Components and systems approach in educational technology
- Role of educational technology in formal and informal learning environments

---

2. Instructional Design Models

- Introduction to Instructional Design (ID) and its importance
- **ADDIE Model**: Analysis, Design, Development, Implementation, Evaluation
- **Dick & Carey Model**: Systematic approach and components
- **Kemp Model**: Flexible and non-linear approach to instructional design

- Comparison and critique of ID models
- Application of ID models in designing effective learning materials

---

3. Multimedia Learning and Cognitive Theory of Multimedia Learning

- Definition and types of multimedia in education (text, audio, video, animation)
- Mayer's Cognitive Theory of Multimedia Learning (CTML)
- Principles of multimedia learning (e.g., coherence, signaling, redundancy, spatial contiguity)
- Cognitive load theory and managing working memory in multimedia learning
- Designing multimedia instructional materials for effective learning outcomes

---

4. Emerging Technologies in Education

- **Augmented Reality (AR)**: Concepts, educational applications, and tools
- **Virtual Reality (VR)**: Immersive learning environments and use cases
- **Artificial Intelligence (AI)**: Adaptive learning systems, chatbots, and personalized learning
- **Massive Open Online Courses (MOOCs)**: Structure, platforms (Coursera, edX), and impact
- **Mobile Learning**: Principles, devices, and strategies for ubiquitous learning
- Challenges and opportunities in adopting emerging technologies

REFERENCES:

1. Morrison, G. R., Ross, S. M., Kalman, H., & Kemp, J. E. (2012). *Designing Effective Instruction* (7th Ed.). Wiley.
2. Dick, W., Carey, L., & Carey, J. O. (2015). *The Systematic Design of Instruction* (8th Ed.). Pearson.
3. Molenda, M. (2003). In Search of the Elusive ADDIE Model. *Performance Improvement*, 42(5), 34–36.
4. Smith, P. L., & Ragan, T. J. (2004). *Instructional Design* (3rd Ed.). Wiley.
5. Branch, R. M. (2009). *Instructional Design: The ADDIE Approach*. Springer. • Reiser, R. A., & Dempsey, J. V. (2018). *Trends and Issues in Instructional Design and Technology* (4th Ed.). Pearson.
6. Saettler, P. (2004). *The Evolution of American Educational Technology*. IAP.
7. Januszewski, A., & Molenda, M. (2008). *Educational Technology: A Definition with Commentary*. Lawrence Erlbaum Associates.
8. Bates, A. W. (2015). *Teaching in a Digital Age*. [Available online: https://opentextbc.ca/teachinginadigitalage/]
9. Kumar, K. L. (1996). *Educational Technology*. New Age International.

Paper-IV Data Processing and Computer Application

(SUBJECT SPECIFIC PAPER) 3-0-1-0 {4}

Course Objectives

By the end of this course, the learners will be able to:

1. Understand the fundamental concepts of descriptive statistics, including types and nature of data, scales of measurement, and measures of central tendency and variability.
2. Apply appropriate techniques for graphical and diagrammatic presentation of data, including box plots, line graphs, and other relevant visual tools.
3. Explain and compute various measures of relationships such as correlation coefficients; understand the methods, uses, and limitations of correlation in research.
4. Interpret and apply the Normal Probability Curve (NPC) and measures of relative positions (e.g., percentiles, z-scores, t-scores, stanines) in educational research contexts.
5. Demonstrate an understanding of inferential statistical concepts, including sampling distributions, standard error, and statistical significance.
6. Apply parametric tests (t-test, F-test, ANOVA, MANOVA) and non-parametric tests (Chi-square, median test, Kruskal-Wallis test) appropriately for hypothesis testing.
7. Analyze relationships between variables using linear and multiple regression techniques, and develop a basic understanding of multivariate analysis and factor analysis.
8. Utilize computer applications effectively in educational research, including Microsoft Word, PowerPoint, and Excel for data entry, processing, visualization, and documentation.

Course outcomes (COs):

Upon successful completion of the course a student will be able to

CO1	Understand and apply descriptive statistical methods including measures of central tendency, variability, and graphical presentation of data (e.g., box plot, line graph).
CO2	Differentiate between types of data and scales of measurement, and demonstrate ability to organize and display data meaningfully.
CO3	Compute and interpret measures of relationships such as correlation coefficients, and explain their uses and limitations in educational research.
CO4	Explain and use Normal Probability Curve (NPC) and measures of relative position (e.g., percentile ranks, z-scores, t-scores, stanines) in analyzing and interpreting research data.
CO5	Conduct and interpret parametric tests (t-test, F-test, ANOVA, MANOVA) and non-parametric tests (Chi-square, median test, Kruskal-Wallis test), including their appropriate applications.
CO6	Utilize computer applications such as Microsoft Word, Excel, PowerPoint for word processing, data analysis, presentations, and document preparation in research work.

Unit I: Quantitative Methods:

Descriptive Methods

- Measures of central tendency, variability
- Nature and Types of data, Scales of Measurement
- Graphical and Diagrammatic presentation of data; Box Plot, Line graph etc.
- Measures of relationships (Correlation coefficient, methods of determining coefficients of correlation, use and limitations of correlation).
- NPC and its applications in Research.
- Measures of Relative Positions (Percentile Ranks, Standard Scores: t-score, z-scores, Stanines)

Unit II: Inferential Methods

- Concepts of Statistical significance, sampling distribution, and standard error of measurement.
- Tests of Significance (Parametric statistics, t-test, f-test, ANOVA & MANOVA), concept and applications.
- Non-parametric statistics (chi-square, median test, Kruskal-Wallis test): its concept & applications.
- Linear and Multiple Regression
- Multi-variate Analysis Factor Analysis (Overall acquaintance, only basic features)

Unit: III: Application of Computer in Educational Research

- Operating system, Use of Microsoft Office Word, PowerPoint and Excel in word processing, data analysis, graphical presentation and preparation of documents.
- Creating and printing a presentation, Producing a slide show, Editing and formatting worksheets, performing basic calculations, working with charts
- Browsing the internet for related literature and Inter Groups for sharing of data and results.
- Familiarity with the SPSS package.

References:

1. Garret, H.E(1975) Statistics in Psychology and Education, Vakils, Feffer and Simons Ltd, Bombay, India Print.
2. Guilford, J.P. (1956): Fundamental Statistics in Psychology and Education, Kogkusha, Tokyo.
3. Mc Call, R.B (1970) : Fundamentals Statistics for Psychology : New York : Harcourt, Brace & World Inc.
4. Robert, J.S (2000) : GGUM 2000 User's Guide: Versian L.O (on line) Available http:/www.education.umd.edu/ EDMS tutorials/ index html.
5. Sax, Gilbert (1968) : Empirical Foundations of Educational Research, Englewood Cliffs , J.J.
6. Siegal, Sidney (1956) : Non parametric Statistics, Tokyo : McGraw Hill Kog Kusha Ltd.
7. SPSS Inc (1996) SPSS : Statistical package for social sciences, Chocago : Author.
8. Wingersky, M.S; Barten, M.A & Lord, F.M (1982): LOGIST User's Guide, Princeton, N.J.E Educational Testing Service.
9. RUMM 2020 : Rasch Undimentioned Measurement Model (RUMM 2020) For analyzing assessment and attitude questionnaire data available : http//www.rummlab.com.

Paper-IV - Practicum / Seminar /Presentation and Workshop

(SUBJECT SPECIFIC PAPER) **3-0-1-0 {4}**

Course Objectives

1. To enable students to observe, analyze, and reflect on real classroom practices through structured practicum activities including classroom observation and field visits.
2. To develop skills in preparing effective teaching-learning materials and engaging in micro-teaching with constructive peer feedback for improving teaching competency.
3. To facilitate experiential learning through exposure to various educational institutions such as schools, DIETs, inclusive centers, and NGOs, encouraging professional reflection and reporting.
4. To foster the ability to explore and present contemporary educational issues by guiding students in seminar paper preparation, literature review, and use of proper academic referencing styles (APA/MLA).
5. To enhance communication and presentation skills using digital tools like PowerPoint, Prezi, and Canva, and to build confidence through oral presentation and idea defense in academic settings.
6. To cultivate critical self-reflection and collaborative learning through peer evaluation and self-assessment during seminar presentations.
7. To develop understanding of the role of workshops in professional development, including conceptual knowledge, practical planning, and organization of theme-based workshops.

Course outcomes (COs):

Upon successful completion of the course a student will be able to

CO1	Demonstrate the ability to observe classroom teaching, identify effective instructional strategies, and prepare analytical observation reports.
CO2	Design and develop appropriate teaching-learning materials to enhance classroom instruction and learner engagement.
CO3	Perform micro-teaching with focus on specific teaching skills and incorporate peer feedback for professional improvement.
CO4	Engage in field visits to diverse educational institutions and critically reflect on institutional practices and inclusive education approaches.
CO5	Participate in and organize educational workshops by planning, coordinating, and collaborating with peers on selected themes.
CO6	Actively engage in skill-development workshops and critically document learnings through reflective journals and reports.

Unit I: Practicum in Education

- Observation of classroom teaching and preparation of observation reports.
- Preparation of teaching-learning materials.
- Micro-teaching practice and peer feedback.
- Field visits to educational institutions (schools, inclusive centers, DIETs, NGOs).
- Report writing on field experiences and reflection.

Unit II: Seminar Presentation

- Selection of topic based on contemporary educational issues/research.
- Literature review and preparation of seminar paper.
- Guidelines for academic writing and referencing (APA/MLA).
- Use of ICT tools (PPT, Prezi, Canva) for presentation.
- Oral presentation and defense of ideas in a group setting.
- Peer assessment and self-evaluation.

Unit III: Workshop Participation and Organization

- Concept and importance of workshops in professional development.
- Planning and organizing a theme-based educational workshop (individual or group).
- Active participation in skill-development or theme-based workshops (e.g., inclusive education, NEP 2020, ICT in education, classroom management).
- Preparation of workshop report and learning diary.

Assessment Criteria

- Practicum Report: 20 marks
- Seminar Presentation (Content + Delivery): 30 marks
- Workshop Participation/Organization & Report: 20 marks
- Viva Voce and Reflective Journal: 10 marks