

Post Graduation Diploma in Research in Education (P.G.D.R.)
Semester- XI
(Year- Sixth as per NEP-2020)

Program Specific Outcomes:

After completion of this program learner will be able to:

- Explain norms and standard of research in institution.
- Acquire knowledge of new emerging research areas or dimensions.
- Develop power of critical thinking in particular area or issue.
- Demonstrate the skill of tool construction i.e. survey and interview for research work.
- Use different software for data analysis i.e. SPSS and Excel etc.
- Demonstrate their abilities to discuss on original academic research content.
- Discuss the results of their research work on the established parameters.
- Defend his / her work in open discussions.
- Show sufficient confidence in term of his / her knowledge, ideas and skills during presentation of research works.
- Elaborate and compare different types of research methods.
- Select research area of their interest and Prepare research proposal.
- Explore appropriate sample & statistical technique.
- Search innovative trends of research at local and global level.

Class/ Sem.	Course Code	Core/ Elective	Title of the Paper	Theory/ Practical/ Project	Credit	Total Marks
P.G.D.R. in Education	1150101	Core	Advanced Statistical Analysis and ICT in Research	Theory	2	100 (75+25)
	1150102	Core	Construction and Standardization of Research Tools	Theory	2	100 (75+25)
	1150103	Core	Plagiarism and Ethics in Research	Theory	2	100 (75+25)
	1150104	Core	Evolving Trends and Challenges in Education	Theory	2	100 (75+25)
	1150105	Core	Advanced Research Methodology in Education	Theory	4	100 (75+25)
	1150165	Core	Survey/Research Project	Project	4	100

N. Satish Upadhyay

Post Graduation Diploma in Research in Education (P.G.D.R.)
Semester- XI
(Year- Sixth as per NEP-2020)
Course: Theory
(Core Compulsory)

Program / Class: P.G. D.R. in Education	Year: Sixth	Semester: Eleventh
Subject: Education		
Course Code: 1150101	Course Title: Advanced Statistical Analysis and Cyber Ethics in Research	
Course Learning Outcomes		
<i>On completion of the course, it is expected that the learner will be able to:</i>		
<ul style="list-style-type: none">• Acquire fundamental knowledge advanced statistical analysis techniques.• Find out the authentic sources of information related to educational research.• Uses of software applications for data analysis in educational research.• Apply software applications for writing the thesis.		

Credits:2		Core Compulsory
Max. Marks:100 External Examination – 75 M Internal Examination – 25 M		Min. Passing Marks: 55
Total Instructional Hours-Tutorials- Practical (in hours per week): L – 2 / w		
Unit	Content	Instructional hours
I	<u>STATISTICAL PACKAGES</u> <ul style="list-style-type: none"> • Use of spreadsheet in Research. • Online tools for Data collection. • Online tools for Data Analysis. • Various Statistical Packages: proprietary and open-source packages (SPSS, PSPP, SAS, R, MINI TAB). 	12
II	<u>E-SOURCES IN RESEARCH</u> <ul style="list-style-type: none"> • Open sources. • Electronic Library System. • Online tools for Research. • E-Content: Guidelines and creation. 	10

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II	<u>CYBER EHTICS IN RESEARCH</u> <ul style="list-style-type: none"> • Meaning. • Concept. • Need and Scope. 	8
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Suggested Readings

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. McCall, 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. (online) Available
http://www.education.umd.edu/EDMS_tutorials/index.html.
 Sax, Gilbert. (1968): Empirical Foundations of Educational Research, Englewood Cliffs, J.

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Program / Class: P.G. D.R. in Education	Year: Sixth	Semester: Eleventh
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Subject: Education

Course Code: 1150102

Course Title: Construction and Standardization of Research Tools

Course Learning Outcomes

On completion of the course, it is expected that the learner will be able to:

- Describe meaning and need of the research tools.
- Understand various types of research tools.
- Explain principles of tool construction.
- Decide the appropriate type of research tools for their particular study.
- Develop competency in writing the items for research tool.
- Assess the items of the research tool.
- Standardize the research tool.
- Prepare the manual for research tool.

Credits:2	Core Compulsory
Max. Marks:100 External Examination – 75 M Internal Examination – 25 M	Min. Passing Marks: 55
Total Instructional hours- Tutorials- Practical (in hours per week): L – 2 / w	

Unit	Content	Instructional hours
I	<u>BASICS OF RESEARCH TOOL AND ITS TYPE</u> <ul style="list-style-type: none"> • Meaning of Research tools. • Characteristics of a good research tool. • Basis of classifying research tools. • Different types of research tools; their nature, characteristics, merits and demerits- Test, Inventory, Questionnaire, Schedule, Checklist, Rating Scale, Opinionnaire.	10
II	<u>CONSTRUCTION AND VALIDATION OF RESEARCH TOOL</u> <ul style="list-style-type: none"> • Writing objective type test items. • Scrutinizing and editing. • Content validity index (CVI). • Items Analysis Procedure: Pre-Tryout & Final Tryout. • Item Difficulty, Discrimination index. • Distracter analysis. • Criteria for selection of valid item. 	10

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III	<p><u>STANDARIZATION OF RESEARCH TOOL</u></p> <ul style="list-style-type: none"> • Concept and Meaning of Reliability and Validity • Different methods of establishing reliability and validity of a research tool. • Factors affecting Reliability and Validity of a research tool. • Sensitivity to instructional effects (for mastery tests). • Finalization of items. 	10
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Suggested Readings:

1. Garrett, H.E. (1981). Statistics in Psychology and Education (Tenth Indian Reprint), Vails, Feffer & Simmons Ltd.
2. Kaul, L. (2011). Methodology of Educational Research, Vikas Publishing House Pvt. Ltd., Noida
3. Best, J. W. and Kahn, J. (1997) Research in Education. (7th ed.) New Delhi: Prentice - Hall of India Ltd.
4. Ansari, M.S. (2007). Essentials of Measurement and Evaluation, International Publishing House, Meerut
5. Cohen, Louis, Manion, Lawrence and Morrison, Keith (2013). Research Methods in Education, 7th Special Indian Edition, Oxon: Routledge.
6. Creswell, John W. (2012). Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research, 4th Edition, New Jersey: Pearson Prentice Hall Inc.
7. Kerlinger, Fred N. (2014). Foundations of Behavioural Research, 2nd Edition, New Delhi: Surjeet Publications.

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Program/Class: P.G. D.R. in Education	Year: Sixth	Semester: Eleventh
Subject: Education		
Course Code: 1150103	Course Title: Research Ethics and Plagiarism	
Course Learning Outcomes		
<i>On completion of the course, it is expected that the learner will be able to:</i>		
<ul style="list-style-type: none">• Acquire fundamental knowledge advanced statistical analysis techniques.• Find out the authentic sources of information related to educational research.• Apply software applications for data analysis in educational research.• Use software applications for writing the thesis.		

Credits: 2		Core Compulsory
Max. Marks:100 External Examination-75 M Internal Examination – 25 M		Min. Passing Marks: 55
Total Instructional Hours-Tutorials- Practical (in hours per week): L – 2 / w		
Unit	Content	Instructional hours
I	<u>CONCEPTS IN RESEARCH PUBLICATION</u> Concept of <ul style="list-style-type: none"> • Peer Reviewed, Scholarly journal, Refereed Journal. • Impact factor, Q-Index, H-Index. • Scopus Index. • ISSN, ISBN, UGC CARE list. • Online data base- Manupatra, Pro Quest, Ulrichs web, Citation Index, Dissertation Abstracts International e-books and e-journals. 	10
II	<u>COPYRIGHT AND SOURCES</u> <ul style="list-style-type: none"> • Copy Right transfer. • Metadata. • Institutional Repository. • ERIC, Internet archives. • J-store, Shodhganga, Infliibnet. • Google Scholar. • Research Gate. 	10
III	<u>CONCEPT OF RESEARCH ETHICS AND PLAGIARISM</u> <ul style="list-style-type: none"> • Ethics in Writing. • Academic Integrity. • Intellectual Property Rights. • Plagiarism Policies. • Penalties and Consequences. • Features and Functionalities of Anti-Plagiarism Software. 	10

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Suggested Readings:

1. Bird, A. (2006). *Philosophy of science*. Routledge.
2. Mac Intyre, Alasdair. (1967). *A Short History of Ethics*. London.
3. P. Chaddah. (2018). Ethics in Competitive Research: Do not get scooped; do not get plagiarized, ISBN: 978- 9387480865.
4. National Academy of Sciences, National Academy of Engineering, and Institute of Medicine. (2009). *On Being a scientist: A guide to Responsible Conduct in Research: Third Edition*. National Academies Press.
5. Resnik, D.B. (2011). What is ethics in research and why is it important. *National Institute of Environmental Health Sciences*, 1 – 10. Retrieved from <https://www.niehs.nih.gov/research/resources/bioethics/whatis/index.cfm>
6. Beall, J. (2012). Predatory publishers are corrupting open access. *Nature*, 489 (7415), 179–179. <https://doi.org/10.1038/489179a>
7. Indian National Science Academy (INSA), Ethics in Science Education, Research and Governance (2019), ISBN: 978-81-939482-1-7. http://www.insaindia.res.in/pdf/Ethics_Book.pdf

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Program / Class: P.G. D.R. in Education	Year: Sixth	Semester: Eleventh
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Subject: Education

Course Code: 1150104	Course Title: Evolving Trends and Challenges in Education
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Course Learning Outcomes

On completion of the course, it is expected that the learner will be able to:

- Acquire knowledge of new emerging research areas or dimensions in Education.
- Develop power of critical thinking in particular area or issue.
- Inculcating information about the regulations, policies, status and guidelines that govern the conduct of research.
- Understanding the issues and trends in Teacher Education.
- Understanding interdisciplinary approach in teaching and learning.
- Demonstrate their abilities to discuss on original academic research topics.

Credits:2	Core Compulsory
Max. Marks:100 External Examination – 75 M Internal Examination – 25 M	Min. Passing Marks: 55
Total Instructional hours- Tutorials- Practical (in hours per week): L – 2 / w	

Unit	Content	Instructional hours
I	<u>MODERN TRENDS IN EDUCATION AND CHALLENGES</u> <ul style="list-style-type: none"> • Peace Education. • Life Skill Education. • Multicultural Education. • Social Constructivism. • Blended Learning. • Flexi Space Learning. 	11

II	<u>CURRENT ISSUES IN EDUCATION AND CHALLENGES</u> <ul style="list-style-type: none"> • Value Education. • Inclusive Education. • Wellbeing Education. • Citizenship Education. • Economics of Education. • Global Policies in Education: EFA, MDGs & SDGs. 	11
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Dr. Anupama Singh

III	<u>INTERDISCIPLINARY APPROACH IN RESEARCH</u> <ul style="list-style-type: none"> • Interdisciplinary approach: concept, need and scope. • Interdisciplinary approach in Teaching-Learning. • Interdisciplinary approach in Research. 	8
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Suggested Readings:

1. Israel, M. (2014). Research Ethics and Integrity for Social Scientists. Beyond Regulatory Compliance, Sage publ.
2. Best, J. (2011). Research in Education. New Delhi: PHI Learning Pvt. Ltd.
3. Blss, C. & Higson, C (2004). Fundamentals of Social Research Methods (3 rd ed),. Lusaka.
4. Jutta Flick, U. (2009). An Introduction Qualitative Research, London: Sage.
5. (2002). Doing and Writing Qualitative Research. New Delhi: Sage Publications.
6. James Arthur, M. W. (2013). Research Methods and Methodologies in Education. London: Sage Publications.
7. Kelinger, F. N. (1979). Foundations of Behavioural Research. New York: Wadsworth Publishing Co Inc.
8. Mark, R. (1996). Research Made Simple: A Handbook for Social Workers, Thousand Oaks, C.A.: Sage Publication .

Arati Upadhyay

Program / Class: P.G. D.R. in Education	Year: Sixth	Semester: Eleventh
Subject: Education		
Course Code:1150105	Course Title: Advanced Research Methodology in Education	
Course Learning Outcomes <i>On completion of the course, it is expected that the learner will be able to:</i> <ul style="list-style-type: none">• Explain and compare humanistic, scientific and policy research in education.• Use and apply advanced statistical procedures in analyzing data.• Prepare Synopsis.• Interpret research findings.		

Credits:4		Core Compulsory
Max. Marks: 100 External Examination – 75 M Internal Examination – 25 M		Min. Passing Marks:55
Total Instructional Hours-Tutorials-Practical (in hours per week): L- 4 / w		
Unit	Content	Instructional hours
I	<u>HUMANISTIC RESEARCH METHOD</u> <ul style="list-style-type: none"> • Humanistic research procedure. • Analysis of evidence in Humanistic studies. 	8
II	<u>SCIENTIFIC RESEARCH PROCEDURE</u> <ul style="list-style-type: none"> • Preparation of Synopsis. • Differences among need, rationale and significance of the study • Procedure of writing review: Integration of findings. • Thesis writing: Steps, Chapters, Tables, Interpretation, Discussion of result. • Bibliography or References: Method and Procedure. 	15
III	<u>POLICY RESEARCH</u> <ul style="list-style-type: none"> • Educational research and policy making. • Policy oriented research: Trends, developmental, experimental and evaluative studies. • Implications of Policy research. 	10

Skaterpadhyap

IV	<u>USE AND APPROACH OF ADVANCED STATISTICAL PROBLEM</u> <ul style="list-style-type: none"> • ANCOVA with two three or more covariate. • Canonical Analysis. • Discriminant Analysis. • Meta-Analysis, Multilevel Analysis. • Significance level vs. magnitude of effect size. 	15
V	<u>RESEARCH DESIGNS</u> <ul style="list-style-type: none"> • Randomized Group designs. • Latin Square design. • Factorial design of experiment. 	12

Suggested Readings:

1. Edwards, A.L. (1968). Experimental Designing Psychological Research, New York, American Publishing Co. Pvt. Ltd.
2. Campbell, D.T. and Fiske, D.W. (1959). Convergent and Discrimination Validation by Multi Trait – Multi Method Matrix. Psychological Bulletin, 5, 81-105.
3. Keeves, J.P. (1988). Educational Research, Methodology and Measurement. An international Handbook Oxford, Pergamon Press.
4. Learner, D. & Lasswell, H. (Eds.) (1951). The Policy Science. California Stanford.
5. Meltsner, A.J. (1976). Policy Analysis in the Bureaucracy. California: University of California, Press
6. Wilson, J.Q. (1981). Policy Intellectual and Public Policy. Public Interest, 64, 31-46.
7. Winner, B.J. (1962). Statistical Principles in Experimental Design. New York: McGraw Hill.

<p align="center"> Semester XI, Year 6 Course Code: 1150165 Credit: 04 Core Compulsory </p>
<p align="center">Core Compulsory: Survey / Research Project</p>

Asatirupadhyay.