

CURRICULUM
Ph. D.
2017-18

Centre for Education

Session 2017-2018

Scheme

Course Code	Course Title	Credit Distribution			
		L	T	P	Total
EDU 701	Research Process in Education	3	2	0	4
EDU702	Testing, Statistical Techniques and Computer Applications	3	2	0	4
EDU703	Theory, Practices and Issues in Education	2	2	0	3
EDU704	Futuristic Education	2	2	0	3
EDU705	Thematic Paper	0	0	6	3
EDU706	Research Competencies	1	0	4	3
	Total	11	8	10	20

Course Title: Research Process in Education
Paper Code: EDU 701

L	T	P	Credits
3	2	0	4

Learning Outcomes

The students will be able to:

- Understand the application of quantitative, qualitative and mixed approaches of research.
- Conduct a literature search and develop a research proposal
- Select an appropriate sampling design for a research study
- Understand the procedure for tool construction
- Understand documentation and dissemination of research in education

Course Content

Unit I

16 Hours

1. Research approaches: logical positivism, phenomenology, ethnography, and triangulation, quantitative, qualitative; types of research and their applications: according to purpose and method
2. Historical Research: primary and secondary sources of information, external and internal criticism of the source
3. Descriptive Research: assessment studies, evaluation studies, ex-post facto studies, replication and meta-analysis.
4. Experimental research: types of experimental research designs: designing and developing appropriate experimental designs for research problems.

Unit II

14 Hours

1. Process to select a problem and review of related literature
2. Sampling design: selecting appropriate probability and non-probability sampling techniques for qualitative and quantitative research problems

Unit III

14 Hours

1. Tools for Quantitative research: types and criteria for selecting appropriate tools
2. Tools for Qualitative research: types and criteria for selection of appropriate tools
3. Ethical issues in research.

Unit IV

16 Hours

1. Qualitative Methods: selection, types and application
2. Quantitative Methods: selection, types and application
3. Mixed Method: meaning and characteristics, designs and their application

Suggested Readings

- Aggarwal, Y.P. (1988). *Statistical Methods: Concepts, Application and Computation*. New Delhi: Sterling Publishers Pvt. Ltd.
- Best J.W. (1999). *Research in Education*. New Delhi: Prentice Hall of India Pvt. Ltd.
- Bogdon, R., & Biklen, S. K. (2008). *Qualitative Research for Education: An Introduction to Theories and Practice*. New Delhi: PHI learning
- Borg, W.R., & Gall, M.D. (1983). *Educational Research – An Introduction*. New York: Longman, Inc.
- Chandra, S. S., & Sharma, R.K. (2010). *Research in education*. New Delhi: Atlantic Publishers and Distributers (P) LTD.
- Christensen, L. (2007). *Experimental Methodology*. Boston: Allyn & Bacon.
- Creswell, J. W. (2015). *Educational Research: Planning, Conducting and Evaluating Quantitative and qualitative Research*. Boston: Pearson Publications.
- Curtis, W., Murphy, M., & Shields, S. (2013). *Research and Education*. New York & London: Routledge
- EfratEfron, S., & Ravid, R. (2013). *Action Research in Education: A Practical Guide*, New York: Routledge
- Egbert, J., & Sanden, S. (2013). *Foundations of Education Research: Understanding Theoretical Components*. New York: Routledge.
- Ferguson, G.A. (1966). *Statistical Analysis in Psychology and Education*. New York: McGraw-Hill
- Fraenkel, J.R., & Wallen, N.E. (1996). *How to Design and Evaluate Research in Education*. New York: McGraw Hill.
- Gordon, P. (1996). *A Guide to Educational Research*. New York: Routledge
- Kaul, L. (1984). *Methodology of Educational Research*. New Delhi: Vikas Publications.
- Kilkpatrick, D.L. (2005). *Evaluating training Programmes: The four Levels*. San Francisco: Brrett-Kochler.
- Kress, T. (2013). *Using Critical Research for Educational and Social Change*. New York & London: Routledge.

- Lauren, B., Little, T. D., & Card, N. A. (2012). *Developmental Research Methods*. New York: The Guilford Press.
- Martella, R. C., Nelson, J. R., Morgan, R. L., & Martella, N. E. (2013). *Understanding and Interpreting Educational Research*, New York: Routledge Guilford Press
- Maykut, P., & Morehouse, R. (1994). *Beginning Qualitative Research- A Philosophic and Practical Guide*. London: The Falmer Press.
- Miller, S. A. (2007). *Developmental Research Methods*. New Delhi: Sage Publications.
- Opie, C. (2004). *Doing Educational Research: A Guide for First time researchers*. New Delhi: Vistar Publications.
- Patton, M.Q. (2002). *Qualitative Research and Evaluation Methods*. C.A: Sage Publications.
- Petscher, Y., Schatschneider, C., & Compton, D. L. (2013). *Applied Quantitative Analysis in Education and the Social Sciences*. New York & London: Routledge
- Reason, P., & Bradbury, H. (Eds) (2006). *Handbook of action research: Concise paperback edition*. CA: Sage Publications.
- Scott, D., & Usher, R. (1996). *Understanding Educational Research*. New York: Routledge.
- Sidney, S. (1965). *Non-Parametric Statistics*. New York: McGraw Hill Books Company.
- Tolmie, A., McAteer, E., & Muijs, D. (2012). *Quantitative Methods in Educational and Social Research Using SPSS*. Maidenhead: Open University Press
- Wellington, J. (2015). *Educational Research*. New Delhi: Bloomsbury Academic.

Course Title: Testing, Statistical Techniques and Computer Applications

Paper Code: EDU 702

L	T	P	Credits
3	2	0	4

Learning Outcomes

The students will be able to:

- apply characteristics of a set of data in tabular and graphical forms and its computation
- test hypotheses of a research problem
- use appropriate procedures to analyse quantitative and qualitative data
- develop competence in the use of statistical packages for analysis of data
- develop and standardize tools for qualitative or quantitative analysis

Course Content

Unit I

16 hours

1. Testing and evaluation: purpose of testing: assessment, measurement and evaluation: concept, types, difference & uses
2. Class room assessment techniques (CAT), innovation and application.
3. Preparation of check list for observation, constructing schedule for interview, evaluating a scale
4. Data analysis in qualitative research: content analysis, inductive, phenomenological-analytical

Unit II**14 hours**

1. Construction of a test: understanding the construct and operationalization, preparing the item content, selection of item format, difficulty level, discriminating index, item analysis,
2. Question banks: how to frame questions according to different levels of thinking skills
3. Reliability & validity: its determination and application of reliability & validity for quantitative tools

Unit III**16 hours**

1. Statistical Inferences- Theoretical understanding and applications of Parametric and Non Parametric tests
2. Approximation and Errors in research: standard error in mean, median, QD, SD, correlation

Unit IV**14 hours**

1. Internet as a source of social sciences research- for literature review, data collection and analysis
2. Selecting appropriate statistical techniques for analysing different types of hypotheses
3. Quantitative data analysis using software packages - Excel, SPSS, and eViews.
4. Interpretation of results of statistical analysis

Suggested Readings

- Agarwal, B.L. (2013). *Basic statistics*. New Delhi: New age International (P) Limited Publishers.
- Aiken, L.R., & Marnat, G.G. (2009). *Psychological testing and assessment*. Noida (U.P.): Pearson.
- Anastasi, A., & Urbina, S. (2014). *Psychological testing*. New Delhi: PHI Learning Private Limited.
- Ferguson, G. (1981). *A Statistical Analysis in Psychology and Education*. New York: McGraw Hill.
- Garrett, H.E. (1973). *Statistics in Education and Psychology*. Bombay: Vakils Febber and Simons.
- Gibbons, J.D. (1971). *Non-Parametric Statistical Inference*. New York: McGraw Hill.
- Glan, G.V., & Hopkins, K.D. (1996). *Statistical Methods in Education and Psychology*. Boston: Allyn & Bacon.
- Gregory, R. J. (2014). *Psychological testing: History, principles and applications*. New Delhi: Pearson.
- Guilford, J.P., & Fruchter, B. (1987). *Fundamental Statistics in Education and Psychology*. Tokyo: McGraw Hill.
- Henry, G.T. (1995). *Graphing data: Techniques for display and analysis*. CA: Sage Publications.
- Howell, D.C. (1997). *Statistical Methods for Psychology*. CA: Duxbury Press.
- Huck, S.W. (2007). *Reading Statistics and Research*. Boston: Allyn & Bacon.
- Majumdar, P. K. (2010). *Applied statistics*. New Delhi: Rawat Publisher.
- Medhi, J. (2014). *Statistical Methods*. New Delhi: New Age International (P) Limited Publishers.

- Miles, M.B., & Huberman, A.M. (1994). *Qualitative Data Analysis: An expanded Sourcebook*. Thousand Oaks, CA: Sage.
- Mohanty, P.K., & Patel, S. K. (2016). *Basic statistics*. New Delhi: Scientific Publishers.
- Siegal, S. (1956). *Non-parametric Statistics for Behavioural Science*, New York: McGraw Hill.

Course Title: Theory, Practices and Contemporary Issues in Education

Paper Code: EDU 703

L	T	P	Credits
2	2	0	3

Learning Outcomes

The students will be able to:

- understand the different paradigms of education
- analyse basic issues of philosophies of education
- reflect on the basic parameters of the processes of human development
- evaluate different issues of education from socio-cultural perspectives

Course Content

Unit I

11 Hours

1. Educational paradigms: empirical, interpretive and critical perspectives, critical appraisal of education as a discipline.
2. Epistemological, metaphysical and axiological issues in education
3. Movement towards wisdom society through wisdom education

Unit II

12 Hours

1. Process of education and learning, pedagogy, andragogy
2. Learner's engagement in the process of knowledge construction, understanding the changing profile of the teachers/teacher educators, use of constructivism in teaching and learning.

Unit III

10 Hours

1. Perspectives of human development: Piaget, Vygotsky and constructivist perspectives.
2. Concept of holistic development, learning, thinking and problem solving in the context of school and outside school

Unit IV

12 Hours

1. Analysis of curriculum: designing of curriculum in the context of changing socio-economic and cultural perspectives.

2. Equal opportunities in education, access and inequities in education, quality concerns in education, language and medium of instructions, assessment of learning and examination, peace and human rights education, policy of inclusion, education of the disadvantaged group, open and distance learning.

Suggested Readings

- Barris, K. (1979). *Education and Knowledge: the structured Misrepresentation of reality*. London: Routledge & Kegan Paul
- Bruner, J.C. (1997). *The Culture and Education*. London: Harvard University Press.
- Dewey, J. (1963). *Democracy and Education*. New York: Macmillan.
- Dikshit, H.P., Garg, S., Panda, S., & Vijayshri. (2007). *Access and equity: challenges for open and distance learning*. New Delhi: Kogan Page India Private Limited
- Edqerton, S. H. (1997). *Translating the Curriculum: Multiculturalism into the Cultural Studies*. New York & London: Routledge.
- Mohapatra, J.K., Mahapatra, M., & Parida, B.K. (2015). *Constructivism the new paradigm from theory to practice*. New Delhi: Atlantic Publishers & Distributors (P) LTD.
- Newman, P.H., & Newman, B.M. (2015). *Theories of human development*. New York: Psychology Press
- Shukla, S. C. (1985). *Sociological Perspective in Education: A Reader*. Delhi: Chankya.
- Wiles, J. (2004). *Curriculum Essentials- A Resource for Educators*. Allyn & Bacon.
- Wiles, J.W., & Boondi, J.C. (2015). *Curriculum development: guide to practice*. USA: Pearson.
- Wyne, J.P. (1973). *Theories of Education to the Foundations of Education*. London: Harper and Row Publishers

Course Title: Futuristic Education

Paper Code: EDU 704

L	T	P	Credits
2	2	0	3

Learning Outcomes

The students will be able to

- Understand the concept and approaches of futuristic education in the context of change in the field of education.
- Predict the futuristic issues of education in the context of social-economic and political changes of the society.
- Critically examine the nature of social, scientific, technological and value based changes towards 21st Century and its impact on the goals of futuristic education.

Course Content

Unit I

11 hours

1. Future studies: meaning, nature, scope and importance, various technological, social, cultural, political and economic perspectives of change and future education, future studies vis-à-vis futuristic education.

2. Future classroom: connecting students across the globe

Unit II**12 hours**

1. Approaches of futuristic planning: intra educational extrapolation, demographic projection, school Mapping, human resource development, social demand approach, rate of return approach social justice approach and duration based approaches.
2. Learning; ubiquitous, social, blended, emotional, service, and situated: concept and process, concept and creation of self-organized learning environment (SOLE)

Unit III**12 hours**

1. Smart goals in education: concept, setting up goals at elementary & secondary Level.
2. Technology in classroom: educational apps, data bases& knowledge organization and sharing tools, user generated content.
3. Digital library, Virtual classroom and virtual laboratories: concept, process of use, challenges

Unit IV**11 hours**

1. Future of science and technology and its impact on the goals of future education
2. Future of values vis-à-vis science and education
3. Professional ethics: change in present scenario and factors influencing ethical decision making

References

- Capra, F. (1982). *The Turning Point*. London: Flemingo.
- Danial, B. (1974). *The Post Industrial Society*, New Delhi: Arnold Heinemann Publishers.
- Davey, G. (2014). *Applied psychology*. UK: British Publishing Society & Blackwell Publishing Ltd.
- Orozco, G. L., Lee, W. M., Blando, J. A., & Shooshani, B. (2014). *Introduction to multicultural counselling for helping professionals*. NY: Routledge
- Singh, B. K., Keshawani, K. K., & Thapa, N. (2016). *Librarianship in digital environment*. New Delhi: Uppal Publishing House.
- Vozzola, E. C. (2014). *Moral development: theory and applications*. New York and London: Routledge

Course Title: Thematic Paper

L	T	P	Credit
0	0	6	3

Paper Code: EDU 705

The students will select an area of their choice with the direction of their supervisor within first two weeks from the start of the semester. They will write a theme paper selecting few variables from that area. There will be two presentations on the theme selected.

First presentation will be held during 6-7 week of the semester. Two examiners from the Centre will evaluate it on the following criteria.

- Content
- Significance of the area
- Presentation
- Response to questions asked by examiners

Presentation will be of 30-45 min. duration. First evaluation will consist of 20 marks. Second presentation will be held during 12-13 weeks of the semester and will consist of 30 Marks. The criteria of evaluation and duration of presentation will be same as mentioned above.

Course Title: Research Competencies

Paper Code: EDU 706

L	T	P	Credit
1	0	4	3

The students in this paper will have to conduct activities on all the below mentioned aspects and it will be evaluated by two examiners from the Centre. The first two activities will be completed between 12-16 weeks and the other two will be completed between 20-24 weeks of the semester.

Part A

- Tool Construction
- Conducting Action Research

Part B

- Writing of Research Articles
- Writing of References

Evaluation Criteria

- Tool construction - 15marks
- Action research - 15marks
- Research articles and references/bibliography- 10+10=20marks
- Practical exam - 35marks
- Viva Voce - 15marks
- Total - 100 marks