

CURRICULUM Ph.D

Centre for Education

Session 2015-16

Scheme

Course Code	Course Title	Credit Distribution			
		L	T	P	Total
EDU 701	Research Process in Education	3	2	0	4
EDU702	Computer Applications, Testing and Statistical Techniques	3	0	2	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	6	12	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
- construct a tool and procedure for collection of data
- understand documentation and dissemination of research in education

Course Content

Unit I Approaches and Types of Research

1. **Research approaches:** logical positivism, phenomenology, ethnography, and triangulation; types of research and their application: 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 Research Methods

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

Unit III **Research Procedure**

1. **Research Procedure:** sources to select a problem and review of literature
2. **Sampling:** selecting appropriate probability and non-probability sampling techniques for qualitative and quantitative research problems

Unit IV **Tools for Research**

1. **Quantitative research tools:** selection and their reliability and validity
2. **Qualitative research tools:** selection and their reliability and validity
3. Ethical issues in research.

Suggested Readings

- Best J.W. (1999). 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.
- Christensen, L. (2007). Experimental Methodology. Boston: Allyn& Bacon.
- Clive Opie (2004). Doing Educational Research- A Guide for First time researchers. New Delhi: Vistar Publications.
- Creswell, J. W. (2012). Educational Research: Planning, Conducting and Evaluating Quantitative and qualitative Research(4th Edition), Pearson,Boston
- Fraenkel, J.R., Wallen, N.E. (1996). How to Design and Evaluate Research in Education. New York: McGraw Hill.
- Kaul, Lokesh (1984). Methodology of Educational Research. New Delhi: Vikas Publications.
- Kerlinger, F.N. (1986). Foundations of Behavioural Research. Fort Worth, TX: Harcourt Bmce Jovanovich.
- Kilkpatrick, D.L. (2005). Evaluating training Programmes: The four Levels. San Francisco: Brrett-Kochler.
- Jill Porter & Penny Lacey (2005). Researching Learning Difficulties- A Guide for Practitioners. Paul Chapman Publishing.
- Pamela Maykut& Richard Morehouse (1994). Beginning Qualitative Research- A Philosophic and Practical Guide. The Falmer Press London. Washington D.C.
- Patton. M.Q. (2002). Qualitative Research and Evaluation Methods. Thousand Oaks: C.A: Sage.
- Reason, P. & Bradbury, H. (Eds) (2006). Handbook of action research: Concise paperback edition: Thousand Oaks, CA: Sage.
- Scott, David & Usher, Robin (1996). Understanding Educational Research. New York: Rout ledge.
- Siegel Sidney (1965) : Non-Parametric Statistics, McGraw Hill Books Company, New York.

Course Title: Computer Applications, Testing and Statistical Techniques

Paper Code: EDU 702

L	T	P	Credits
3	0	2	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 standardise a tool for qualitative or quantitative analysis

Course Content

Unit I

1. **Computer applications in research:** data analysis using computer, computer assisted qualitative data analysis software, Excel and SPSS for quantitative data analysis
2. Internet as a source for social sciences research
3. Method of selecting appropriate statistical techniques for analysing hypotheses
4. Interpretation of results of statistical analysis

Unit II

1. **Testing and evaluation:** purpose of testing: assessment, measurement and evaluation: concept, types, difference & uses; class room assessment techniques (CAT), innovation and application, evaluation: qualitative and quantitative methods of classroom evaluation; continuous and comprehensive evaluation: summative and formative.
2. Preparation of check list for observation, constructing schedule for interview, evaluating a scale, constructing test items of very short, short answer, essay and multiple choice questions.

Unit III

1. **Standardization of test:** construction and standardization of a test: item content, item format, difficulty level, discriminating index, item analysis,
2. **Reliability & validity:** its determination and application.
3. **Marking system:** ethics for marking, relationship with grading system, grading system: types and development.

Unit IV

1. Analysis of Quantitative & Qualitative data: testing of hypotheses using parametric statistics. t-test, ANOVA and ANCOVA
2. Testing of hypotheses using non parametric statistics: chi-square, Yates correction, Mann Whitney u test, sign test, median and sign- rank test.
3. Use of SPSS for analysing quantitative data
4. Data analysis in qualitative research: content analysis, inductive, phenomenological-analytical

Suggested Readings

- Ferguson, G. (1981). *A Statistical Analysis in Psychology and Education*, New York: McGraw Hill.
- 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, (3rd edition)*. Boston: Allyn & Bacon.
- Guilford, J.P., and B. Fruchter. (1987). *Fundamental Statistics in Education and Psychology*. Tokyo: McGraw Hill (Student-Sixth edition).
- Garrett, H.E. (1973): *Statistics in Education and Psychology*, Bombay, VakilsFebber and Simons,
- Henry, G.T. (1995). *Graphing data: Techniques for display and analysis*. Thousand oaks, CA: Sage.
- Howell, D.C. (1997). *Statistical Methods for Psychology*. Belmont, CA: Duxbury Press.
- Huck, S.W. (2007). *Reading Statistics and research*. Boston: Allyn& Bacon.
- Siegal, S. (1956). *Non-parametric Statistics for Behavioural Science*, New York: McGraw Hill.
- Miles, M.B., & Huberman, A.M. (1994). *Qualitative Data Analysis: An expanded Sourcebook*. Thousand Oaks, CA: Sage.

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

1. **Educational paradigms:** empirical, interpretive and critical perspectives, critical appraisal of education as a discipline.
2. Epistemological, metaphysical and axiological issues in education

Unit II

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

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, language development and learning.

Unit IV

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*; Routledge & Kegan Paul, London.
- Blaug, Mark (1972). *An introduction to Economics of Education*. Allen Lane, London. Penguin.
- Bodner, G.M. (1986). *Constructivism: A Theory of Knowledge*. Journal of Chemical Education.
- Bruner, J.C. (1997). *The Culture and Education*. London: Harvard University Press.
- Dewey, J. (1963) *Democracy and Education*, Macmillan, New York.
- Edqerton, Susan Huddleston (1997). *Translating the Curriculum: Multiculturalism into the Cultural Studies*. Routledge.
- Etta, R. Hollins (1996): *Transforming Curriculum for a Culturally Diverse Society*. Lawrence Erlbaum Associates Publishers. Mahwah, New Jersey.
- Freire, P. (1970) *Cultural Action for freedom*, Penguin Education special, Ringwood, Victoria, Australia.
- Freire, P. (1973) *Pedagogy of the oppressed*, Penguin Education special, Ringwood, Victoria, Australia.

- Shukla, Suresh C (1985). *Sociological Perspective in Education: A Reader*. Delhi: Chankya.
- Slattery (1995): *Curriculum Development in Postmodern Era*. (Critical Education & Practice).
- Smith, Edward E. & Kosslyn, SteEDUn M. (2007). *Cognitive Psychology: Mind and Brain*. Prentice Hall of India.
- Sri Aurobindo (1924). *A System of National Education*. Calcutta: Arya Publishing House.
- Tilak, Jandhyala B.G. (2003). *Education, Society and Development*. New Delhi: APH publishing Corporation for NUEPA.
- Wiles, Jon (2004). *Curriculum Essentials- A Resource for Educators*. Allyn & Bacon.
- Wyne, J.P. (1973). *Theories of Education to the Foundations of Education* Harper and Row, Publishers, London.

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

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.

Unit II

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, creating of self-organized learning environment (SOLE)

Unit III

1. **Smart goals in education:** concept, setting up goals at elementary & secondary Level.

2. Technology in classroom, educational apps, programmed based website & data bases for school and higher education.
3. **Digital library and virtual laboratories:** concept, process of use, challenges

Unit IV

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 values & ethics:** change in present scenario and factors influencing ethical decision making

References

- Ashton, D. And Taylor, B.(1969) *Technology Forecasting and Corporate Strategy*. Bradford University Press.
- Bell Danial,(1974) *The Post Industrial Society*, New Delhi: Arnold Heinemann Publishers.
- Capra, F.(1982) *The Turning Point*. London: Flemingo.
- Clarke, A.C.(1973) *Profiles of the Future*. Harper & Row.
- David Price(2013).*Open: How we'll work, live and learn in Future*, Crux Publishing .
- Richard W. Hostrop,(1973) *Foundations of Futurology in Education*, EtcPubns.
- Ruhela,S.P.(2000).*Futurology of Education: The Indian Context*, Kanishka Publishers.
- Chandra,R(2010). *Education and Futurology* ,Shree Publishers and Distributors.

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.

- Tool Construction
- Action Research Proposal Preparation
- Writing of Research Articles
- Writing of References and Bibliography

The Course will be assessed by giving 50 marks for Assignments (20 for tool construction, 20 for Action research and 10 for research articles and references/bibliography), 25 for practical exam and 25 for Viva Voce, which will be a total of 100 marks