

BHARATHIAR UNIVERSITY : COIMBATORE 641 046

M.Phil./ Ph.D. (FT/PT) in EDUCATION

PART – I SYLLABUS

(with Effect From 2008-09 only)

PAPER I - Teaching Techniques and Pedagogical Methods in Education

PAPER II - Research Methods and Advance Statistics

PAPER III - Special Papers

1. Education Technology
2. Trends in Special Education

Paper-I : Teaching Techniques / Pedagogical Methods in Education

Objectives:

At the end of the course, the scholars will be able to

1. Understand the meaning, scope and concept of Education, Educational Technology, Instructional Technology & Educational Evaluation.
2. Appreciate the contributions made by philosophers and psychologists to the field of education.
3. Review the relative effectiveness among the different methods and techniques of teaching and learning in Higher Education.
4. Discriminate among different types of tests meant for students' evaluation, diagnose the learning problems of the students and take remedial measures.
5. Be aware of the web based communication strategies for professional development and be benefited of the e-resources in Education.

UNIT – I Higher Education and Learning

Historical Perspectives ... Objectives and Role of Higher Education ... Learning and Learning Hierarchy ... Information Processing ... Learning Events and Outcomes ... Motivation.

UNIT – II Teaching Technology: Designs

Teaching Technology: Meaning, concept and scope ... Instructional Designs: Objective based, Skill based, Competency based, Learning style based and Model based.

UNIT – III Methods and Techniques of Teaching

Large Group Techniques: Lecture, Modified Lecture, Seminar, Symposium, Panel Discussion, Team Teaching, Project Approach and Workshop ... Small Group Techniques: Group Discussion, Simulation, Role Playing, Buzz Technique, Brain Storming, Case Discussion and Assignment ... Systems Approach in Education.

UNIT – IV Measurement and Evaluation in Education

Educational Evaluation: A Conceptual Framework...Methods of Evaluation ... Self Evaluation and Student Evaluation in Higher Education ... Question Banking ... Diagnostic Testing and Remedial Teaching.

UNIT- V Electronic Media in Education

Instructional Media: Concept, Selection, Use and Variety ... e-Learning Resources: e-Learning, e-books, e-journals,etc. ... Web- based Learning: Access and Teaching Issues.

Text Books:

For Units I to IV

Vedanayagam, E.G. (1989) Teaching Technology for College Teachers. New Delhi: Sterling Publishers (P) Ltd.

For Unit V

Rajasekar. S. (2005) Computer Education and Educational Computing, Hyderabad: Neelkamal Publications.

Books for References:

1. Kumar, K.L. (1997) Educational Technology, New Delhi: New Age International (P) Ltd.
 2. Sampathkumar, K., Paneerselvam, A and Santhanam, S. (1990) Introduction to Educational Technology, New Delhi: Sterling Publishers (Pvt.) Ltd.
 3. Tony Bates, A.W. (2005) Technology, e-Learning and Distance Education, New York:Routledge.
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M.Phil./ Ph.D. (FT/PT) in EDUCATION

PART – I SYLLABUS (with Effect From 2008-09 only)

PAPER II - Research Methods and Advance Statistics

Objectives:

- To enable students to understand advance research methods and statistical tools in education.
- To help students in preparing model research proposals for research studies.
- To enable students to understand the principles of evaluative research and statistics.

Unit-1 Introduction:

- 1.1 Nature of Educational research- Motivating factors of Educational research-Utility of research.
- 1.2 Dimensions of Educational research-the purpose of a study-the use of research the time dimension in research- Data Collection Techniques used.
- 1.3 Areas of Educational Research- Problems relating to Teaching and learning process-Priority areas of educational research.
- 1.4 Research problem-Selecting the problem-Defining the problem.
- 1.5 Research Design-Meaning of Research Design-Need for Research Design-Features of a good design.

Unit-2 Review, Sampling techniques and Measurement:

- 2.1 Purpose of the Review-Identification of the related Literature-Organizing the related literature. Hypothesis-Definition-Formulation of a hypothesis-Ways of stating a hypothesis.
- 2.2 Hypothesis-Definition-Formulation of a hypothesis-Ways of stating a hypothesis.
- 2.3 Sampling-Methods of sampling-sampling errors-Unavoidable errors-Constant errors of sampling.
- 2.4 Scales-Nominal, ordinal interval and ratio-Construction of tools-Item analysis.
- 2.5 Establishment of reliability-test retest method, split half method, Parallel form method rational equivalence method, Parallel item method-consistency method-Establishment of Validity-face, content, construct concurrent and factorial.

Unit -3 Research methods:

- 3.1 Experimental methods-Quasi experimental designs-Factorial design.
- 3.2 Genetic method-causal-comparative method, -Documentary analysis, Bibliographical method.
- 3.3 Participatory and Ethnography Research methods.
- 3.4 Quantitative Research Techniques-Survey, Action, Longitudinal Research
- 3.5 Tools of data collection Observation, Interview schedule, checklist questionnaire achievement test and attitude scale-design.

Unit-4 Educational Statistics:

- 4.1 Normal probability curve-properties; deviations-skewness and kurtosis-applications.
- 4.2 Measures of relative positions-percentile and percentile rank standard scores-z-scores-t scores.
- 4.3 Univariate Analysis: Mean Median, Mode-Choosing a measure of central tendency.
- 4.4 Bivariate Analysis: Correlation-biserial, point biserial tetra choric and the phicoefficient-Multiple correlation and regression-Partial correlation.
- 4.5 Analysis of variance-Post Anova test-analysis of co-variance-Factor analysis-assumptions, Limitations.

Unit-5 Computer application and Interdisciplinary approach:

- 5.1 Computer application: Statistical package for social sciences (SPSS)-Software packages.
- 5.2 Computer word processing-Introduction to MS-Excel-some Fundamental Features-Formula and Functions.
- 5.3 Computer graphs-preparation of research Documents
- 5.4 Processing of Information-Preparation of Research Proposals, Writing of the report of the Research studies.
- 5.5 Inter -Disciplinary Approach-Need for Inter-disciplinary Approach- The Process of Inter-disciplinary approach-Problems of Inter-disciplinary approach.

PART I - SYLLABUS (effective from the academic year 2003-2004 onwards)

Paper III Educational Technology (Special Paper)

- Objectives:**
- To understand the concept of Educational Technology.
 - To familiarize the learner with the trends and application of Hardware & Software (Television and Computers) to Educational Programmes.
 - To introduce the Principles of Computer Programming and Educational Video.
 - To understand broad principles of Educational software preparation.
 - To appreciate the growing trends in the systems of educational communication.
 - To become aware of the techniques of improving Teacher Behavior.

Unit I: Modern Trends in Educational Technology:

- 1.1 Educational Technology - Definition - Meaning Scope- relevance to the present day.
- 1.2 Conditions facilitating effective learning -Teacher and learner roles.
- 1.3 Principles of modern communication in formal and non-formal situations of learning -nature and role of communication in classrooms-Mass communication - the media and methods.
- 1.4 Distance education-the concept, Principles and Practices -the media and methods for distance education-lifelong education -role of radio and Television.
- 1.5 The Media-Method relationships-their application for classroom instruction-criteria for selection of appropriate media and methods for teaching.
- 1.6 Hard and Software technology-New media developments and their application-OHP, Tap slides, CAI, CCTV, Satellite TV and so on.

Unit II: Systems of Educational Communication:

- 2.0 Instructional Theories and Design-need behavior modification. cognitive construct, task analysis and Humanistic psychology-approaches.
- 2.1 Models of Teaching-Analysis of different teaching models, with reference to their format and principles.
- 2.2 Organization of message, instructional events and learning experiences in relation to teaching.
- 2.3 Need for Inter-disciplinary approach to teaching-operational modes and expected behavioral out comes.
- 2.4 Multi-media approach to learning and instruction.
- 2.5 Concept of individualizing instruction-Principles and practice of programmed leaning and Keller plan-Automated Learning.
- 2.6 Group Instruction-Seminar, Symposium, discussion, brain storm, synaptic panel-discussion, team teaching and teaching for creativity.

Unit III: Concept of Improving Teacher Behavior:

- 3.1 Concept of interaction analysis. Objectives and Advantages of analyzing classroom interaction.
- 3.2 Tools and methods of interaction analysis in class-rooms.
- 3.2 Concept of micro-teaching-descriptive analysis of the micro-teaching skills and practicing in classroom.
- 3.4 A systems approach to teaching and learning.

Unit IV : System approach to teaching and learning:

- 4.1 CCTV Versus Television-Scope and utilization.
- 4.2 Special features and advantages of CCTV for classroom instruction.
- 4.3 Media effectiveness and current trends with reference to CCTV.
- 4.4 Video-technology-video as a research tool-tutoring video system.
- 4.5 Special features of CCTV with reference to teacher training and classroom applications.

Unit V: Computer and it is Educational Applications:

- 5.1 Computer, its organization, parts and uses.
- 5.2 Programming concepts and programming languages.
- 5.3 Principles of developing Educational Software and documentation.

Reference Books:

1. Cleary, Alan et al (1976) "Educational Technology", John Wiley & Sons, London.
 2. Dececco, John P (1964) "Educational Technology", Holt Rinehart & Winston, New York.
 3. Richmond, Kenneth W (1970) "The Concept of Educational Technology" Weidenfield & Nicolson, London.
 4. Percival Fred & Ellington Hency (1984) "A Handbook of Educational Technology", Kogan Page Ltd., London.
 5. Rowntree Derek (1982) "Educational Technology in Curriculum Development" London Harper & Row.
 6. Orturn Zuber-Skerrit (1984) "Video in Higher Education.", Kogan Page Ltd., London.
 7. Wilson J Alistair (1973) "E.T.V. Guidelines", Hutchinson Education Ltd., London.
- International year Book of Educational Technology - 1982-83 Aspects of Educational Technology XIII Educational Technology - Twenty Years on 1059 to 1979 - Compiled report. Groves P S (1980) "Computer Programming in Basic" Allied Publishers (p) Ltd., Madras.

Paper III Trends in special Education. (Special paper)

Objectives:

- To enable the students to understand different technologies related liability conditions
- To help in understanding the instructional implications in definition classification of disability conditions.
- To create and awareness about the developing trends in special education practices

Unit - 1 Introduction to disabilities :

- 1.1 Definitions and categories
- 1.2 Identification and Assessment
- 1.3 Educational Service Delivery Systems
- 1.4 Current Practices
- 1.5 Legislation: PWD Act 1995, RCI Act 1992 National Trust Act 1999

Unit - 2 Mentally retarded:

- 2.1 Definitions and Classifications
- 2.2 Identification and assessment
- 2.3 Nature of Cognitive Development
- 2.4 Psycho-social development
- 2.5 Educational services for mentally retarded students

Unit - 3 Hearing-impaired:

- 3.1 Definitions and Classifications
- 3.2 Etiology
- 3.3 Identification and assessment
- 3.4 Learning styles of hearing impaired
- 3.5 Educational services for hearing impaired students

Unit - 4 Visually impaired:

- 4.1 Definitions and classifications
- 4.2 Identification and assessment
- 4.3 Anatomy and physiology of the Eye
- 4.4 Educational and Psychological Implications
- 4.5 Educational Services Delivery Systems

Unit - 5 Physical Disabilities:

- 5.1 Definitions and classifications
- 5.2 Etiology
- 5.3 Skills development of physically
- 5.4 Educational and Psychological Implications
- 5.5 Current Practices and approaches

Reference:

1. Deshier, D.D. & Schemaker, J.B. (1984). Learning Strategies : A New Way to Teach Salt Lake City: World wide Media.
2. Grossman, H.J. (1983) Classification in Mental Retardation, Washington DC: American Association on Mental Deficiency.
3. Kirk .S.A. & Gallagher, J.J. (1983). Educating Exceptional Children. (4th Edn.) Boston: Houghton Mifflin
4. Lerner, J. (1995): Learning Disabilities Boston Houghton Mifflin.
Ling, D. (Ed.) (1984) Early Intervention for Hearing Impaired Children: Oral Options. San Diego: College - Hill Press
5. Moores, D.F.(1982) Education the Deaf: Psychology, Principles and Practices (2nd Edn.) Boston: Hong ton Mifflin..
6. Yeseldykel, J.& Algozzine, B. 91984) Introduction to Special Education. Houghton Mifflin.
Jangira, N.K. & Mani, M.N.G. Integrated Education the Disabled: Management Perspectives, Gurgaon: Academic Press.
7. Mani, M.N.G.(1991) Techniques of Teaching Blind Children Delhi : Sterling Publishers
8. Mani, M.N.G.(2000) Inclusive Education in Indian Context, Coimbatore: SRK Vidyalaya