

## (104) Pedagogy and ICT across the Curriculum

**Max Marks: 70**  
**External: 35**  
**Internal: 15**  
**Internal Practical: 20**

### Design of the Course:

Each unit of study has a field-based assignment/practicum task

Specific readings need to be used to introduce themes

### Rationale and Aim

The purpose of this course is to engage student-teachers with key issues of organizing schools and learning environments and of visualizing and selecting appropriate pedagogic approaches. The course should enable them to link their understanding of children, of their social contexts and of curricular knowledge, to practical steps in organizing, motivating and assessing learning. While engagement with subject matter is the chief aim of pedagogic courses specific to disciplines, this course focuses on generic aspects of pedagogy that cut across various school subjects. It intends to widen their awareness of pedagogic possibilities, and to enrich their 'pedagogic imagination', so that student-teachers can think beyond standard approaches, and try to fit their pedagogic approaches with their aims of teaching and learning, while creating non-threatening learning environments. Also students will Understand the meaning and scope of ICT and its applications in teaching learning. They will Understand the computer components and software and hardware approach in education. They will learn to use the e-learning in the process of learning.

### Units of Study

#### Unit 1: Frameworks for Teaching and Learning

##### *Learning Environments in School Contexts*

Idea of building as a learning aid (**BALA**); Laboratory, Resource Room, Library, Play Ground.

□ *Ways of Organizing Schools, Classrooms and Learning Process and its critical review*

Organization of **Non-graded, Grade-based** and **Multi level** schools and classrooms: **peer tutoring, team learning and individualized** learning programmes and critical examination of these methods.

##### *Planning for teaching*

- **Need for (and approaches to) planning** for the year or term; unit plans; planning for specific classroom sessions; planning for specific students
- **Teaching: Phases of teaching-** Operation of teaching phases - preactive, interactive and post active; **Levels of teaching** –Memory, Understanding and Reflective levels and their **practical use** in class room situation.

- **instructional objectives in terms of Blooms Taxonomy**

*Specific Units can be selected in each of the school subject to concertize the experience of planning classroom teaching* **Managing classroom learning and use of Audio Visual Resources**

- Managing teaching-learning materials and resources; **Types, Selection and utilization of** teaching-learning materials and resources.
- Critical review of the impact of audio-visual media on students and Strategies for using audio-visual media in further learning – films, documentaries

## **Unit 2: Role of Assessment in Teaching and Learning**

### □ ***Distinguishing Assessment for Learning and Assessment of Learning***

- **Assessment:** Meaning, Assessment verses Evaluation, Types and stages of assessment and Importance of assessment.

### □ ***Strategies for Assessment:***

- **Strategies for formative assessment:** Creating learning profiles including portfolios; error analysis; developing and using assessment rubrics
- **Strategies for summative assessment:** Designing effective tests; preparation of a Blue print
- Critical review of teaching and assessment practices based solely on tests and examinations

## **Unit 3: Use of Library and ICT Resources**

### ***Managing and Using the School Library***

- Using library as a resource in planning for teaching
- Guiding students to use the library as a resource for reference
- Critical review of current library practices

### □ ***ICT in Teaching-Learning***

#### *Computer Fundamentals: Hardware & Software*

- **Introduction to computer:** Functional overview of a computer and its parts.

#### *Role of ICT in Teaching-Learning*

- **Application of computers in teaching learning process** ( attendance, Evaluation, e-Content, Daily Planner etc)
- **Critical examination** of the role of ICT in contemporary education.
- **ICT-based teacher professional and Capacity development:** Academic and Research content on the web: e-journals and abstraction services; E-learning, E blocks

### **Modes of Transaction**

- Critical reading and discussion of specific texts/articles to broaden exposure and develop conceptual clarity (*For Units 1, 2 & 3*)
- Critical observation of schools and classrooms to understand alternative ways of organizing

these; appreciate the elements that make for 'learning environments.'

- Observing, documenting and interpreting classroom interactions; analyse situations that reflect a distinction between learning experiences and learning outcomes and understand key ingredients of a sound pedagogy
- Analysis of content and presentation in school textbooks, for visualizing understanding perspective and for pedagogic elements required for their usage in a classroom
- Develop (a) concept maps and activities for theme based curriculum design, and (b) teaching plans for a selected topic/concept in a subject. (*All the above for Unit 1*)
- Develop a portfolio of assessment tools and designing assessments tools for the above (*For Unit 2*)
- Practical exercises for developing competence in use of library, Preparation and presentation of ppt and word file for teaching on any topic at the school level for use of ICT resources. (*For unit 3*)

## ICT Practicals

1. Creation of 5 Power Point Presentations on teaching of different subjects consisting of minimum 10 slides.
2. Creation of 5 word documents on educational topics using Punjabi and English fonts.
3. Creation of 3 sheets in Excel showing class results and other data.
4. Creation of a blog on ICT topic using [www.blogger.com](http://www.blogger.com)
5. Search of District, city/village & residence using E-map/Google map.
6. Conversion of given English paragraph into Punjabi using Google Transliteration.
7. Search of documents in websites of MHRD, NCERT, NCTE, and Department Of School Education Punjab.
8. Use and creation of web dictionaries/Encyclopedias etc.

## Essential Readings

### Unit 1

1. Badheka Gijubhai (2006) *Diwaswapna*. Montessori Bal Shikshan Samiti: Churu, Rajaladesar.
2. Brown George and E.C. Wragg (1993) *Questioning*, Routledge: UK
3. Brown George and E.C.Wragg (1993), *Explaining*, Routledge : UK.
4. Elisabeth Dunne and Bennet Neville (1990) *Talking and Learning in Groups*. Routledge .
5. Holt, John (1990) *Learning All the Time*. Addison-Wesley Publishing Co: New York
6. Michael Marland (Indian Edition, 2005) *Craft of the Classroom: A Survival Guide*, Heinemann Educational, Chapter 1: Starting Points, Chapter 2: Relationships of the Classroom, Chapter 3: The Classroom Environment, Chapter 7: The Rhythm of Teaching
7. Johnson, D.W. and R.T. Johanson (1999) *Learning Together and Alone: Cooperative Competitive and individualistic learning*. (5<sup>th</sup> edition). Allyn & Bacom: Boston
8. Pollard, Andrew (2002) *Reflective Teaching*. Continuum: London, Chapter 3: Developing an Evidence-informed Classroom, pp 42-69: excerpts on 'Organization: How are we Managing the Classroom? Behaviour: How are we Managing the Class?' Teaching, How are we Developing Our Strategies?'; Assessment: How are Monitoring Learning and Performance?'; and 'Social Inclusion: What are the consequences of classroom practice?'

## Unit 2

1. Freeman, Richard & Lewis, Roger (Indian reprint, 2005), *Planning and Implementing Assessment*, Routledge Falmer (Part One: Principles of Assessment, 4. and 5, Part Two: The methods toolbox, 9. and 10., Part Three: Sources of Assessment 11. 12. Part Four: Using Assessment Methods 14. 15. 16. 17, 18. 19. 20; Part Six: Assessment Issues 25., 26

## Unit 3

1. Mukunda Usha (2008) *Inculcating and enhancing the reading habit*. Excerpt from a training manual for librarians in the southern region as part of an NCERT workshop in January 2008.
2. Mukunda Usha (2011) Guide to setting up an open library in Primary Schools.
3. Articles from Magazines and Journals for Teachers:  
*Teacher Plus*, A 15, Vikramপুরi, Secunderabad-500 009. [www.teacherplus.org](http://www.teacherplus.org)  
*Journal of Krishnamurti Schools* (available online)  
*Learning Curve*, News Letter, Ajim Premji Foundation.  
*Sandarbha* : Journal from Eklavya, Madhya Pradesh
4. Adam, D.M. (1985): Computers and Teacher Training: A Practical guide, The Haworth Pren, Inc., N.Y.
5. Erickson, C.W.H. & Curl, D.H. (1972). Fundamentals of teaching with audio visual
6. technology (Second ed.) New York: Macmillan Publishing.
7. Coburn, P. and et. al. (1985): Practical Guide to Computers in Education, Addison –Wesley Publishing Company, Inc.

## Readings for Discussion

1. Angella, W Little (Ed) (2006) Education for All and Multi-grade Teaching: Challenges and Opportunities, Springer: Netherlands, chapter 2: Learning Opportunities for All: pedagogy in multigrade and monograde classrooms in the Turks and Caicos Islands, pp: 27-46; chapter 14: Multigrade Lessons for EFA: a synthesis, pp. 300-348.
2. Bill A (2001) *To Teach* Billings Publishers: UK
3. Bruner, Jerome (1996) In *The Culture of Education*. Harvard University Press: Cambridge. Chapter2: Folk Pedagogy, pp 44-65.
4. Dewey, John (1897) *My Pedagogic Creed*. School Journal, Vol. 54. (Available in Hindi: Translation-RRCEE)
5. Holt, John (1964) *How Children Fail*. Pitman Publishing Corporation: USA
6. Kamii, C. (1974) Pedagogical Principles Derived from Piaget's theory: Relevance for Educational Practice. In Milton Schwebel and Jane Raph. (eds.) *Piaget in Classroom*. London: Routledge and Kegan Paul, 199-215.
7. Sarangapani, Padma (2003) *Construction of School Knowledge*. New Delhi: Sage Publications. Select Chapters.
8. Sylvia Ashton Warner (2004) *Adhyapak* Granth Shilpi: New Delhi. (Available in English as well).
9. Graeme, K. (1969): Blackboard to Computers: A Guide to Educational Aids, London, Ward Lock.
10. Haas, K.B. and Packer, H.Q. (1990): Preparation and Use of Audio Visual Aids, 3<sup>rd</sup> Edition, Prentice Hall, Inc.
11. Mallik, Utpal et al. (2001), Learning with Computers Level –III. NCERT New Delhi.
12. Rosenberg, M.J. (2001), e-learning New York: McGraw Hill.

## Advanced Reading

- Danielson Charlotte (2007) *Enhancing Professional Practice, A Framework for Teaching* Assn for Supervision & Curriculum: US