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## **TEACHER EDUCATION FOR ELEMENTARY STAGE**

The National Council of Teacher Education (NCTE) has suggested a separate and exclusive model of teacher education with specific objectives and complete plan of action for implementation as under:

### **SPECIFIC OBJECTIVES**

On implementation of the restructured curriculum the following will be the expected outcomes:

- engage prospective teachers with interdisciplinary engagement that locates education in a larger socio-political and cultural frame;
  - engage student-teachers with subject content along with pedagogic theory, perspective and approach;
  - facilitate in questioning one's own assumptions about learners, knowledge and the learning process;
  - develop teachers professionally and support their aspirations as teachers;
  - develop clear ideas of how children think and learn as members of a diverse society;
  - develop capacities and a repertoire of skills to organize learning and create an ethos of learning for all children;
  - promote dispositions of working collaboratively, independent thinking with positive attributes and attitudes.
  - to ensure holistic development among children to meet the challenges in their life.
  - focuses the areas of CTET (Central Teacher Eligibility test).
  - provide opportunities for self learning, reflection, assimilation and articulation of new ideas.
  - to strengthen the foundation of children upto elementary level so that they come up as useful and productive citizen of the country.
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## **REVISED COURSE STRUCTURE**

### **A. Foundation Course (A)**

1. Childhood and Development of Children
2. Pedagogic Process in Elementary Education
3. Language Proficiency and Early Literacy
4. Education, Society, Curriculum and Learners
5. Learner and Learning Process
6. Contemporary Issues in Elementary Education
7. Education for Holistic Development - I
8. Education for Holistic Development - II

### **B. Pedagogy Course (B)**

1. Content-based Pedagogy in English - I
2. Content-based Pedagogy in English - II
3. Content-based Pedagogy in Mathematics - I
4. Content-based Pedagogy in Mathematics - II
5. Content-based Pedagogy in EVS (Science) - I
6. Content-based Pedagogy in EVS (Science) - II
7. Content-based Pedagogy in EVS (Social Science) - I
8. Content-based Pedagogy in EVS (Social Science) - II
9. Content-based Pedagogy in Hindi - I
10. Content-based Pedagogy in Hindi - II

### **C. Practical Courses (C)**

1. Workshop & Field based activities
  - a. Art and Aesthetic Education
  - b. Health, Physical Education and Nutrition
  - c. Work and Craft Education
  - d. Peace and Value Education
2. School Based Activities and Supervised Practical Teaching programme
  - a. Pre Internship
  - b. Teaching Practicum-Internship
3. Project on Action Research
4. ICT for Education-I
5. ICT for Education-II

### **Practice Teaching**

- Pedagogical analysis of Elementary School Teaching Subjects
- Practice Teaching in Schools
- Observation of model lessons

### **Tentative allotment of periods**

The total duration of school hours will be 6 hours i.e., from 8: 30 a.m. to 2:30 p.m.

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## **TRANSACTIONAL STRATEGIES**

The prospective teachers are to be prepared so as to enable them to perform successfully in the pre-instructional and post-instructional phases of teaching. For this several need-based well designed approaches such as lecture, discussion, co-operative study, self study, constructivism, project methods etc may be adopted depending on the nature of subjects. The teacher educators may combine different strategies and instructional-aids and organize field trips along with practical and demonstration techniques. To carry out this process due attention will have to be paid to cater to the needs of the students and locally available resources.

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## **EXISTING SCHEME OF STUDIES**

**An overview of the schemes of studies in the existing curriculum reveals the following discrepancies**

- 'English' is not included as one of the compulsory subjects while preparing merit list.
  - Students belonging to vocational streams at +2 level are offered admission although the vocational subjects are not taught at primary school.
  - The subjects like **Home Science** and **Agriculture** are treated under **Skill Based Group**. **Home Science** and **Agriculture** are science subjects with 70% weightage to theory as in other Science subjects and should be incorporated under '**Environmental Group**'.
  - IT Application subjects like IT System, Business Data Processing, DTP-CAD Multimedia are incorporated in the environmental group which should be under '**Skill Base Group**'.
  - In pedagogy courses certain topics were found to be outdated hence have been deleted.
  - The topics like **Right to Education Act, Inclusive Education, Gender Sensitization, Use of ICT** and **CCE** are missing in the existing curriculum.
  - Meaning, nature and Scope of Educational Psychology and Educational Statistics are not need based in the present educational scenario. Moreover these topics do not figure in the suggestive guidelines of NCTE 2009.
  - The existing curriculum doesn't focus on the areas like principles, functions and nature of English language along with the approaches like constructivism.
  - Practical is not included in EVS-II.
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- reative drama is an integral part of giving exposure to the budding teachers which is missing from the present curriculum.
- Some important components in Art Education paper such as water colours, oil painting and composition are missing from the existing syllabus.
- In the practical papers for e.g., in **Physical Education** the component of '**School Health**' is missing.
- The professional courses should have '**Work and Education**' which will empower the trainees with the practical knowledge of craft work. This subject is also missing in the existing curriculum.
- The syllabus of Computer Literacy is not structured properly.
- The mode of transaction and assessment in the existing curriculum is outdated preventing holistic development of trainees.

The above changes have been suggested keeping in view of the inspections and supervisions conducted at the schools in A & N Islands fromtime to time to monitor and to evaluate the need of present scenario of teacher education.

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## **SUGGESTED SCHEME OF STUDIES**

The JBT curriculum for the Teacher Training Institute (TTI) of the A & N Islands was prepared in 1995 and implemented subsequently after making necessary modifications. It was again revised in the year 2003-04. During these 10 years many changes and recommendations have been made in the area of teacher education in our country. In the context of emerging demands and innovations in the present scenario, the existing curriculum has been reviewed and the following modifications have been made in the revised curriculum for two year D.El.Ed course. The changes have been brought in the schemes of studies, over all structural design of paper and in the content and pedagogy of individual papers.

- There will be **four** foundation course papers and **five** others will be based on content based pedagogy in first and second years respectively.
  - Practical papers have both theoretical and field practical.
  - There will be five units in each first and second year in foundation course and content based pedagogy papers.
  - Duration of the external examination will be for 3 hours in terms of those papers whose weightage of marks is 70 while the duration of the rest of the papers will be 2½ hours each.
  - For practical examination the timing is mentioned
  - Mode of conducting internal examinations, practical, time, evaluation procedure, development of skills and school experience programme are included in the scheme of studies.
  - Internship in teaching (School based activities and supervised practical teaching programme) the pre-requisites such as objective, methodology, teaching aids, lesson planning, supervision, class management, peer-teaching, arrangement classes along with content enrichment are to be done in the first year of the course.
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- Each paper has relevant rationale, appropriate objectives, transaction mode, content based pedagogical units followed by suggested activities, assignments and recommended reference books.
  - The topics like Right to Education Act, Right to Information Act, Inclusive Education, Gender Sensitization, Use of ICT and CCE have been incorporated keeping in view the changes brought in the Education System.
  - In EVS-I the topics like electoral politics, ethos and public mobilization are included.
  - The paper Education for Holistic Development incorporates the components of Creative Drama, Arts and Aesthetic Education, Peace and Value Education, Physical Health and Nutrition.
  - Language and Early Literacy being an emerging area as per the NCTE syllabus, it has been included in the revised curriculum.
  - School Attachment programme has been included in second year course.
  - Information and communication Technology (ICT) which adds to the quality of education also figures in the restructured curriculum.
  - In the new curriculum the assessment of the pupil teacher will be based on curricular and other curricular area.
  - The entire curriculum is compact, integrated, child-oriented, comprehensive and stream lined as per the present scenario of the school and teacher education programme under NCTE norms.
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## **REGULATION**

Teacher Education curriculum for two year D.El.Ed. course of A & N Islands will be governed by the following regulation:

### **R-1. Eligibility for Admission:**

- Candidates seeking admission to D.El.Ed. course must have passed +2 level from recognized higher secondary board or equivalent board with atleast **50% marks** (in theory). The ST candidates may be given 5% relaxation.
- The candidates must have atleast **three** primary school subjects at senior secondary level with the following three groups:
  - a. **Language group:** Hindi, English, Tamil, Bengali and Telugu (maximum two). English is included as one of the compulsory subjects out of the two languages while preparing merit list.
  - b. **Environmental Group:** Physics, Chemistry, Biology, Mathematics, Accountancy, Computer Science, History, Geography, Political Science, Economics, Business Studies (maximum four).
  - c. **Skill Based Group:** Physical Education, Fine Arts, Music, Typing, Stenography subjects, Agriculture, Home Science, IT Application Subjects, Office Practice, Secretarial Practices and other vocational subjects (maximum one).
- The admission of the candidate must be regulated on merit, admission test or both as decided by the A & N Islands Administration from time to time.

### **R-2. Duration:**

- The course will be of two years duration. Each year the course will consist of 220 working days with 6 hours duration, including days spent for **Examination** of the institute and internship.

### **R-3. Medium of Instruction:**

- The medium of instruction for the examination shall be English and Hindi.
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**R-4. Attendance:**

- Minimum 75% attendance in each year is mandatory to appear in the examination as regular candidate.
- The Director/PrincipalSIE (Controller of Examination) may condone 5% of attendance on the ground of ill-health in respect of the concerned pupil-teacher.

**R-5. School Based Activities and supervised Practical Teaching programme:**

The crux of a teacher education programme is the exposure provided to the student teachers to classroom teaching. Practice teaching and internship is meant for providing first hand experiences to the student teachers in classroom teaching and whole school life in general. Preparation is equally essential as are reflections and follow up activities, after practice teaching and internship.

- Internship will consist of pre-conference for discussion of modalities for organization of internship and presentation of criticism/model lessons.
- Post conference will be organized to elicit the reflection from student teachers, cooperating teachers and institute supervisors for effective organization of future internship programmes
- The lessons will cover all subjects i.e., Languages, Mathematics, Environmental Studies.
- Each lesson will be assessed continuously by institute supervisor and/or cooperating teachers and award average score of all the lessons.
- Evaluation of performance, during internship will be done on the basis of assessment of institute supervisors, cooperating teachers, head of schools and students activities/assignments.

**Area of assessment**

- Teaching (Sub:1- 4)
  - Lesson Planning (Record Maintenance)
  - Development of scheme of lessons & activities
  - Record on Observation of peer teaching
  - Administration of Achievement tests and its analysis/identification of slow learners and gifted children
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- Record on school site and participation of school activities
- Preparation of Instructional Materials/Teaching Learning Aid Exhibition
- Assessment of Activities of Pupil-Teachers by Head of school

#### **R-6. Evaluation Procedure**

- The external examination is conducted by the A & N Board of Examinations for teacher Education for both first and second year trainees.
- The evaluation of terminal marks will be 70% and session marks 30%. The 30% marks may be treated as formative assessment and awarded by the concerned teacher educators at the institute. The sessional assessment will include activities like group discussion, seminars, debate, assignments, project works and written examinations etc. The assessment will cover curricular and other curricular activities.
- The equal weightage will be given to each and every unit accordingly questions will be framed for 70% marks for theory papers.
- The question paper will be set including MCQ, essay, short, very short and objective types in all the theory paper including the content and pedagogical areas.
- The candidate has to successfully complete the term end examination.
- The candidates those who have completed 1<sup>st</sup> year course with required attendance but failed in exams to fulfill the academic requirement in 1<sup>st</sup> year may be allowed to continue in 2<sup>nd</sup> year subject to clearance to all back logged activities of 1<sup>st</sup> year.

#### **R-7. Minimum for Pass**

- Minimum for pass is 40% in each theory paper, 50% in practical and 45% in aggregate (sessional and terminal examination marks taken together). A candidate who satisfies these requirements for pass in all the subjects to be declared pass.
  - It is compulsory for all student trainees to appear and pass in all practical papers and theory papers separately.
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- Failure to secure the minimum in any paper or papers or whole exam will be declared to have failed in such paper(s). Such candidates may reappear for the paper concerned in immediate successive two chances.
- No third chance will be allowed to such candidates. Only tribal candidates may be allowed for third chance.
- There will be provision for re-checking of answer script(s) if the candidate seeks to do so in respective subject(s) based on the conditions laid down by the A & N Board of Teacher Education.

#### **R-8. Declaration of class**

Candidates successfully completing all the exams of the programme in the **first attempt** will be classified as follows on the basis of aggregate marks.

**First class with Distinction -75% and above in each individual paper**

**First Class - 60% and above in aggregate**

**Second Class -50%and above but less than 60% in aggregate**

**Pass -45% and above but less than 50% in aggregate**

Candidates who fail in any paper or entire examination and pass at a subsequent appearance securing more than 60% will be deemed to have completed the exam in the first class only. Distinction will not be awarded to him/her even if he/she scores 75% or above in each paper.

#### **R-9. Award of Certificate**

- Board of Examination for Teacher Education Andaman and Nicobar Islands (BETEANI) will award the certificate to the candidates on being successful.

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# **SCHEME OF STUDIES**

## **Year-wise Course Break-up (1<sup>st</sup> YEAR)**

Paper Code	Paper	Paper Title	Marks			Duration of Exam (In hrs)	Periods per week
			External	Internal	Total		
A. Foundation Course (A)							
FC 1	I	Childhood and Development of Children	70	30	100	03	4
FC 2	II	Pedagogic Process in Elementary Education	70	30	100	03	4
FC 3	III	Language Proficiencyand Early Literacy	70	30	100	03	4
FC 4	IV	Education for Holistic Development I	40	10	50	02	3
		Total	250	100	350		15
B. Pedagogy Course (B)							
PC 1	V	Content-based Pedagogy in English-I	50	25	75	03	4
PC 2	VI	Content-based Pedagogy in Mathematics I	50	25	75	03	4
PC 3	VII	Content-based Pedagogy in EVS-Science I	50	25	75	03	4
PC 4	VIII	Content-based Pedagogy in EVS SocSc-I	50	25	75	03	4
PC 5	IX	Content-based Pedagogy in Hindi I	50	25	75	03	4
		Total	250	125	375		20
C. Practical Courses (PrC)							
PrC 1	X	Workshop & FIELD based activities Education for Holistic development					
		A. Art, Aesthetics and Work Education	10	15	25		2
		B. Music and Drama	10	15	25		2
PrC 2	XI	School Based Activities and supervised Practical Teaching programme) Pre Internship		150	150		4
PrC 3	XII	ICT for Education		25	25		2
		Total	20	205	225		10
		Grand Total A+B+C (350+375+225)			950		45

*Remaining periods will have scope for need based engagement i.e., library, scouts and guides, seminar sessions, cleanliness drive, peer interaction etc.*

### Year-wise Course Break-up (2<sup>ND</sup> YEAR)

Paper Code	Paper	Paper Title	Marks			Duration of Exam (in hrs)	Periods per week
			External	Internal	Total		
A. Foundation Course (A)							
FC 5	I	Education, Society, Curriculum and Learners	70	30	100	03	4
FC 6	II	Learner and Learning Process	70	30	100	03	4
FC 7	III	Contemporary Issues in Elementary education	70	30	100	03	4
FC 8	IV	Education for Holistic Development II	40	10	50	02	3
		Total	250	100	350		15
B. Pedagogy Course (B)							
PC 6	V	Content-based Pedagogy in English-II	50	25	75	03	4
PC 7	VI	Content-based Pedagogy in Mathematics II	50	25	75	03	4
PC 8	VII	Content-based Pedagogy in EVS-Science II	50	25	75	03	4
PC 9	VIII	Content-based Pedagogy in EVS SocSc-II	50	25	75	03	4
PC 10	IX	Content-based Pedagogy in Hindi	50	25	75	03	4
		Total	250	125	375		20
C. Practical Courses (PrC)							
PrC 4	X	Workshop and Field based activities					
		A. Health, Physical education and Nutrition	10	15	25		2
		B. Peace and Value Education	10	15	25		2
PrC 5	XI	School Based Activities and supervised Practical Teaching Programme) Teaching Practicum-internship	100	100	200		
PrC 6	XII	ICT for Education	20	30	50		3
PrC 7	XIII	Project on Action Research		25	25		2
		Total	125	175	325		8
		Grand Total A+B+C(350+375+325)			1050		44

*Remaining periods will have scope for need based engagement i.e., library, scouts and guides, seminar sessions, cleanliness drive, peer interaction etc.*

**N.B:**The activity on Action Research will be started during internship and completed during second year final examination. The activity may be Group work or individual depending upon the situation. The problem will be selected from relevant areas of school education i.e methods, assessment, discipline, management, curriculum etc.

\* Internal and practical comprises of 350 and 550 in the first and second year respectively.

**CHILDHOOD AND THE DEVELOPMENT OF CHILDREN**

<b>Maximum Marks</b>	<b>100</b>
<b>External</b>	<b>70</b>
<b>Internal</b>	<b>30</b>
<b>Contact Periods/week</b>	<b>4</b>

**RATIONALE AND AIM**

The purpose of these course is to equip the student-teacher with the backgroundknowledge that he/she needs to develop an understanding of the elementary school child andhis/her socio-cultural contexts. This background includes a critical engagement withtheories, as well as socio-cultural issues in the world of children and childhood. Buildingupon the above, the aim is to build sensitivity towards and conceptual clarity andperspective children's developmental needs and capabilities, within their socio-culturalcontext.

**GENERAL OBJECTIVE:**

The purpose of these courses is to equip the student-teacher with the background knowledge that she needs to develop an understanding of the elementary school child and his/her socio-cultural contexts.

**SPECIFIC OBJECTIVES:**

- To review general conceptions about child and childhood (specifically with reference to the Indian Social Context); develop a sensitive and critical understanding of the different social/ educational/ cultural realities at the core of exploration into childhood.
  - To develop an understanding of different aspects of a child's physical, mental, motor, social and emotional development.
  - To understand the development process of children with diverse abilities in social, cultural and political contexts.
  - To encourage interaction with children and training in methods of child.
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## **UNITS OF STUDY:**

### **UNIT 1: PERSPECTIVES IN DEVELOPMENT**

- Introduction to development: concept and introduction to perspectives in development, humanistic psychology and developmental theory.
- Enduring themes in the study of development: Principles of Growth and Development socio-cultural contexts influencing development.
- Gathering data about children from different contexts: naturalistic observations; interviews; reflective journals about children; anecdotal records and narratives.

### **UNIT 2: MAJOR DEVELOPMENTS**

- Growth and Maturation.
- Gross and Fine Motor Development Skills in Infancy and Pre-School Children.
- Role of Parents and teachers in providing opportunities for physical and motor development–Play.
- Intelligence - Definitions, Theories, Role of Heredity and Environment, Assessment of Intelligence and Uses and Abuses of Intelligences Tests.

### **UNIT 3: SOCIAL AND EMOTIONAL DEVELOPMENT**

- Personality Development: Types, Freud's Psycho-Social Development and Erickson's Influence of Early Childhood Experiences on later Personality.  
Attachment – Bowlby, Ainsworth
- Social Theories and Gender Development: Meaning of Gender Roles, Influences on Gender Roles, Stereotypes, Gender in the Playground.
- Development of Emotions and the Ability to regulate them.

### **UNIT 4: INDIVIDUAL DIFFERENCES AND ADJUSTMENT**

- Individual Differences - Meaning, and Definition, Determinations of Individual Differences and Educational Implications of the Psychology of Individual Differences.
- Psychology of Adjustment – Meaning and Definitions, Areas of Adjustment, Measurement of Adjustment, Characteristics of Well Adjusted Person, Theories or Models of Adjustment and Methods of Adjustments

### **UNIT 5: CONTEXTS OF SOCIALIZATION**

- Concept of Socialization: Family and Child (Early & Later Childhood) Relationships; Parenting – Baumrind Child Rearing Practices.
  - Separation from Parents, Children in Crèches, Children in Orphanages
  - Schooling: Peer Influences, School Culture, Relationships with Teachers, Teacher Expectations and School Achievement; Being out of School, Overage Learner
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- Relationship with Peers: Friendships and Gender; Competition and Cooperation, Competition and Conflict; Aggression and Bullying from Early Childhood to Adolescence.
- Social Economic and Cultural Differences in Socialization: Learning and Behavioural Difficulties: Implications for Inclusion

### **PRACTICUM:**

The practicum tasks are suggestive and not prescriptive. The teacher educator(s) would frame practicum tasks according to the unit of study if necessary.

### **MODE OF TRANSACTION**

- Classroom discussions for developing conceptual understanding.
- Close reading of text material/research papers
- Individual and group presentations of issues and concerns raised in assignments
- Theoretical and practical activities, exercises, investigations, analysis interpretation of collated observations, systematic data etc.

### **ESSENTIAL READINGS**

1. Papalia, D. E.et.al. (2008) *Human Development*. McGraw Hill Higher Education: New York. Part 1 to Part 5, covering physical and psychosocial development from infancy to middle childhood. Ten chapters. *Omit sections in Chapters 5, 7, 9 relating to cognitive development; these will be read in the second year Child Studies course.*
2. Saraswathi, T.S. (ed) (1999) *Culture, Socialization and Human Development: Theory, Research and Applications in India*. Sage: New Delhi Chapter 4: Theoretical Frameworks in Cross-cultural Psychology, Chapter 6: Individualism in a Collective Culture: A Case of Co-existence of Opposites.
3. Vasanta, D.(2004)Childhood, Work and Schooling:Some Reflections.*Contemporary Education Dialogue*,Vol. 2(1), 5-29.
4. Mukunda, K. V. (2009) *What Did You Ask at School Today? A Handbook on Child Learning*. Noida: Harper Collins. Chapter 4: Child Development, 79-96.
5. Mangal, S K (2004) *Advanced Educational Psychology* (second edition).

**Expertise/ Specialization:** *Master's in Psychology/Child Development.*

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Code: **FC 2**

**FIRST YEAR**

## **PEDAGOGIC PROCESS IN ELEMENTARY EDUCATION**

<b>Maximum Marks</b>	<b>100</b>
<b>External</b>	<b>70</b>
<b>Internal</b>	<b>30</b>
<b>Contact Periods/week</b>	<b>4</b>

### **OBJECTIVES:**

- To help the prospective teachers in understanding the nature of children and the ways/ approaches the children learn in the school/classroom situations.
- To develop capacities of prospective teachers to reflect, reason and make conceptual understanding of pedagogic practices and learning process.
- To empower prospective teachers to prepare and use appropriate Teaching-learning materials for improving learning of the children.
- To build the capacity of the prospective teachers to manage the mono-grade and multi-grade classes effectively.
- To expose the prospective teachers to different modes of assessment of learning and enable them to use those effectively to promote classroom learning.

### **UNITS OF STUDY:**

#### **UNIT 1: QUALITY IN CLASSROOM LEARNING**

- Indicators of quality learning
- Teaching and learning as interactive process
- Major issues in classroom learning
- Teaching for quality learning – characteristics and process of teaching and issues thereof
- Teacher as facilitator of learning

#### **UNIT 2: APPROACHES TO LEARNING AND TEACHING**

- Teacher-centred, learner-centred and learning-centred approaches
  - Competency-based approach
  - Activity-based Approaches: activity and its elements, characteristics of activity, varieties of activity (curricular and other – curricular)
  - Constructivist approach to learning
-

- Major issues associated with each approach

### **UNIT 3: TEACHING-LEARNING MATERIALS**

- Importance of TLMs in classroom transaction
- No cost and low cost materials
- Contextual and local-specific TLMs
- Collection, preparation, storing and use of TLMs
- Library Management and Use of Librarybooks as TLMs
- Learning beyond textbooks – other sources of learning

### **UNIT 4: CLASSROOM MANAGEMENT**

- Managing group and individual learning in classroom
- Mono-grade learning context
- Multi-grade and multi-level learning contexts
- Small size and large size classes

### **UNIT 5: LEARNING ASSESSMENT**

- Concept of measurement, evaluation and assessment
- Continuous and comprehensive assessment
- Tools and techniques of assessment-achievement test, observation, interview, rating scale, check list, case study, questionnaire, project
- Preparation of different types of test items
- Portfolio Assessment
- Preparation of Unit test
- Recording, reporting and sharing of assessment results
- Use of assessment outcomes for improving learning

### **MODES OF TRANSACTION**

- Critical reading and discussion of specific texts/articles to broaden exposure and develop conceptual clarity.
  - 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; analyze 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
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- Develop (a) concept maps and activities for theme based curriculum design, and (b) teaching plans for a selected topic/concept in a subject.
- Develop a portfolio of assessment tools and designing assessments for the above.

### **ESSENTIAL READINGS**

1. Badheka Gijubhai (2006) *Diwaswapna*. Montessori Bal Shikshan Samiti: Churu, Rajaldesar.
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.
7. Johnson, D.W. and R.T. Johanson (1999) *Learning Together and Alone: Cooperative Competitive and individualistic learning. (5th 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?’
9. 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
10. 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.
11. 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.

**Expertise/ Specialization:** *Master Degree in Psychology / Education.*

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**LANGUAGE PROFICIENCY AND EARLY LITERACY**

<b>Maximum Marks</b>	<b>100</b>
<b>Internal</b>	<b>30</b>
<b>External</b>	<b>70</b>
<b>Contact Periods/week</b>	<b>4</b>

**RATIONALE AND AIM**

Language is not only the means of communication it is also a medium through which most of the knowledge is acquired. It is a system that structures the reality around us and represent it in our minds. Language is not confined to the language classroom. It pervades all aspects, subjects and activities of a school and society at large. The key issues need a systematic study. The primary objective of the paper is to make teachers aware of the dynamics language operationalizes, as it exists in the classroom, in children's homes and the larger society and nation. the paper also aims to create in the teachers an understanding of how children learn language skills, the cumulative, developmental and synergistic nature of language learning and factors facilitating or impeding language learning. To draw connections with theory while planning for instruction is another significant aim of this paper.

**SPECIFIC OBJECTIVES**

- to help the students understand the nature of language interplay of language and society
- the developmental process of language acquisition
- function of Language and how children use them as a tool at different developmental stages
- significance and acquisition of early literacy in the larger context of school Curriculum.
- ways of handling aspects of grammar not in isolation but by creatively integrating it with text.

**MODE OF TRANSACTION**

- Close and critical readings of selective texts under 'Discussion' Readings in small groups.
  - Participatory transaction by building them around responses of students.
  - Giving Students opportunities to go through experiential process for transacting some topics such as process writing.
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## **UNITS OF STUDY**

### **UNIT 1: NATURE OF LANGUAGE**

- Rule governed system and language
- Relationship of Language and Society: Identity, power and discrimination
- Nature of multilingualism: Differential status of Indian language classroom

### **UNIT 2: LANGUAGE ACQUISITION AND DEVELOPMENT**

- Language Acquisition and Language Learning : Pre School & early School years
- Development of the four language skills :the synergistic relationship
- Developing reading and writing skills in children
  - (a) ***Emergent literacy***: Readiness for learning
  - (b) ***Early Literacy***: process of transition
  - (c) ***Early Language education***: focus on learning in primary and grades.
- Children's background and School Experience Preparing schools for children – the social diversity paradigm

### **UNIT 3: LANGUAGE ACROSS THE CURRICULUM**

- Function of Language: In the classroom, outside the classroom
- Language in Education and Curriculum
- Learning language and Learning through Language
- Challenges of teaching language in a diverse classroom.

### **UNIT 4: THE CLASSROOM PRACTICES AND POSSIBILITIES**

- Prevalent language teaching practices and approaches and their critique
- Connections between classroom instruction and theories
- Role of literature in language learning
- Learner's active role in understanding literature
- Using Children's literature across curriculum.

### **UNIT 5: ASSESSMENT**

- Assessment as a continuum
  - Use of multiple sources for comprehensive assessment in language
  - Ways of assessment: observation, records, maintaining profiles, etc in language and early literacy.
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## **SUGGESTED ACTIVITIES**

- Prepare a survey report on the basis of the study conducted on diversified language used in Andaman & Nicobar Islands.
- Study the language related arrangements made in the schools of respective areas as medium or subject.
- Make a list of at least 20 words in your mother tongue translate these words into different languages spoken in the islands including English.
- Make a comparative study of any one language spoken in the state & mother tongue in r/o sound phonology syntax and semantic meaning.
- Review the textbook of any one language used in primary classes.

## **ESSENTIAL READINGS**

1. Anderson, R.C. (1984) Role of the Reader's Schema in Comprehension, Learning and Memory. In R.C. Anderson, J. Osbon & R.J. Tierney (ed) *Learning to Read in American schools: Based Readers and content texts*. Hillsdale, Lawrence Erlbaum Associates: New Jersey.
2. Armbruster, Bonnie B. (1984) The Problem of "Inconsiderate Text" In Duffy, G. G. (ed.) *Comprehension Instruction, Perspectives and Suggestions*. Longman: New York.
3. Kumar Krishna (2007) *The Child's Language and the Teacher*. National Book Trust: New Delhi.
4. Labov, W. (1972) The logic of Non- Standard English. In *Language in Education*. Prepared by Language and Learning course Team. Routledge: London.
5. Monson, R. J. (1991) Charting a New Course with Whole Language. *Edn. Leadership*.
6. Sinha, S. (2000) Acquiring Literacy in Schools. *Redesigning Curricula: A symposium on working a framework for School education Seminar*.

## **READINGS FOR DISCUSSION**

1. Agnihotri, R.K. (1995) Multilingualism as a classroom resource. In K. Heugh, A. Sieruhn and P. Pluddemohn (ed.) *Multilingual education for South Africa*. Heinemann: Johannesburg.
  2. Butler, A. and J. Turnbull, (1984) *Towards Reading-Writing Classroom* Primary English Teaching Association Cornell University: New York.
  3. Martin, Jr. B. (1987) The Making of a Reader: A Personal Narrative. In Bernice E. Cullinan, *Children's Literature in the Reading Programme*. International Reading Association: Michigan..
  4. Pinnell, G.S. (1985) Ways to Look at the Functions of Children's Language. In A. Jaggar, M. Trika and Smith-Burke (ed.) *Observing the language learner*. International Reading Association: Newark, DE.
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5. Rhodes, L. K. and N. L. Shanklin (1993) *Windows into Literacy*. Heinemann, The University of Michigan: UK.
6. Rothleen, L. and A. M. Meinbach (1991) *The Literature Connection: Using Children's Books in Classroom*. Good Year Books: Tucson, USA.

### **ADVANCED READINGS**

1. Freedman S. W. and A. H. Dyson (2003) Writing in Flood J. et. al. Handbook of Research on Teaching English Language Arts: Lawrence Erlbaum Associates Inc: New Jersey, USA..
2. Mason, J. M. and S. Sinha (1992) Emerging Literacy in the Early Childhood Years. Applying a Vygotskian Model of Learning and Development in B. Spodek (ed.) *Handbook of research on the education of young children*. Macmillan: New York.
3. Purves, Alan C. (1988). The Aesthetic Mind of Louise Rosenblatt. *Reader 20*.
4. Sinha, Shobha. (2009). Rosenblatt's Theory of Reading: Exploring Literature. *Contemporary Education Dialogue*.
5. Teals, W. and E. Sulzby (1986) Introduction: Emergent Literacy as a perspective for Examining how young Children Become Writers and Readers. In W. Teals, E. Sulzby (ed.) *Emergent Literacy: Writing and Reading*. Norwood: New Jersey.

**Expertise specialization:** *Master's in Literature with a knowledge of Linguistics.*

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**EDUCATION FOR HOLISTIC DEVELOPMENT - I**

<b>Maximum Marks</b>	<b>50</b>
<b>Internal</b>	<b>10</b>
<b>External</b>	<b>40</b>
<b>Contact Periods/week</b>	<b>3</b>

**RATIONALE AND AIM**

The aim of the Art and Aesthetic Education is to understand interconnections between art, crafts, drama, culture, aesthetics, health and livelihoods. The aim is also to appreciate and engage with a diverse range of art processes, products and performances – folk and classical through exposure and exchange.

The relationship between education and health forms the core rationale behind Health, Physical Education and Nutrition Course. Health is a necessary condition for learning apart from being a basic right of every child. Enrolment, retention, concentration and learning outcomes in the classroom have a strong linkage with a child's physical and emotional health. A holistic understanding of health implies a perspective on health that is not merely freedom from germs and disease but an understanding of the social, economic, mental/emotional and physical aspects of health.

**SPECIFIC OBJECTIVES**

- To acquaint the prospective teachers regarding the importance of art education, health and nutrition education, physical education, work-centered education in holistic development of the learners.
- To know different forms of art and learning-teaching strategies for the elementary level learners.
- To develop skills of the prospective teachers to transact health and nutritional education activities and physical education curriculum at different grades.

**UNITS OF STUDY****UNIT 1: ART AND AESTHETICS EDUCATION**

- Concept and significance of Art and Aesthetics Education in elementary schools
  - Developmental stage-specific child art
-

- Appreciation of Visual Art Forms – Drawing and Painting, Rangoli, Collage, Modeling, Making Toys and Mask, Mehendi, Decoration, Pot Art, Terracota.
- Assessment of learners' performance in Art and Aesthetic Education.

## **UNIT 2: DRAMA AND MUSIC**

- Appreciation of Performing Art: Dance, Music, Drama, Puppetry.
- Renowned theater artist of A & N Islands and their contributions for promoting of theater in these Islands.
- Musical terms: Sangeet, Nad, Shruti, Svar, Saptak, Laya, Taal, Alankar, Arola, Avaroha, Murchana, Gram, Murki, Tjaat, Gamak etc
- Classical Gharanas, life sketches: Pt. Omkarnath Thakur, Ustad Zakhir Hussain, Tansen, Pt. Vishnu Digambar Puluskar
- Ragas (Yman, Bhairavi, Bilawal), Ragas practice of song
- Folk tradition of India, Folk/Traditional/Regional song and harvest songs
- Svara Sadhna
- Taal – Teental, Keherva, Dadra, Ek tal, rupaktaal, chartaal
- Patiyala and agra, Bhopali, Bhairav, desh, bihag, raga bahar etc .

## **UNIT 3: WORK and EDUCATION**

- Concept and need of work experience at elementary level
- Work experience curriculum at elementary level
- SUPW and Management of SUPW in schools
- Work-centered education- meaning, necessity
- Planning and Transaction of work-centered education at elementary schools
- Assessment of work - centered education.

## **TRANSACTION MODE**

- Lecture-cum-discussion
  - Use of audio-visual aids
  - Group work and discussion
  - Field experience and field trip
  - Practical work
  - Self imagination
  - Individual and group demonstration
  - Discussion and presentation workshop
-

## **ESSENTIAL READINGS**

1. Dodd, Nigel and Winifred Hickson (1971/1980). *Drama and Theatre in Education*. London: Heinmann.
2. Gupta, Arvind (2003). *Kabad se Jugad: Little Science*. Bhopal: Eklavya.
3. Khanna, S. and NBT (1992). *Joy of Making Indian Toys, Popular Science*. New Delhi: NBT.
4. McCaslin, Nellie (1987). *Creative Drama in the Primary Grades*. Vol I and *In the Intermediate Grades*, Vol II, New York/London: Longman.
5. NCERT, (2006). *Position Paper National Focus Group on Arts, Music, Dance and Theatre*, New Delhi: NCERT.
6. Poetry/songs by Kabir, Tagore, Nirala etc; Passages from Tulsi Das etc; Plays: Andha Yug- Dharam Vir Bharati, Tughlaq: Girish Karnad.
7. Prasad, Devi (1998). *Art as the Basis of Education*, NBT, New Delhi.
8. Sahi, Jane and Sahi, R., *Learning Through Art*, Eklavya, 2009.
9. NCERT. (2005). *National Curriculum Framework*. Section 3.7 – Work and Education. New Delhi: NCERT.

**Expertise specialization:** *Subject experts in the related area of teaching.*

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**CONTENT-BASED PEDAGOGY IN ENGLISH-I**

<b>Maximum Marks</b>	<b>75</b>
<b>Internal</b>	<b>25</b>
<b>External</b>	<b>50</b>
<b>Contact Periods/week</b>	<b>4</b>

**RATIONALE AND AIM**

The purpose of this course is to enable the student-teachers to improve their proficiency in English.

This course focuses on the receptive (listening and reading) and productive (speaking and writing) skills of English and combines within each of these, both an approach on proficiency in usage and proficiency in classroom teaching. The aim will be to enjoy learning English and to constantly reflect on this learning to link it with pedagogical strategies. The students teachers and educators should see language as a set of skills to be acquired rather than as content subject to be taught or learnt through rote methods.

**SPECIFIC OBJECTIVES**

- To strengthen the student-teacher's own English language proficiency.
- To brush up their knowledge of grammatical, lexical and discourse systems in English.
- Decoding interpreting and evaluating written tests
- To enable students to link this with pedagogy
- Acquiring reference and dictionary skill.

**MODE OF TRANSACTION**

- Classroom discussions for developing conceptual understanding.
- Close reading of text material/research papers.
- Individual and group interaction/presentations of issues and concerns raised in assignments.
- Theoretical and practical activities/exercises/investigations on the core areas of reading, writing, speaking and listening;
- Critical analysis of school textbooks to improve skills in critical literacy.

**Note:** *Internal assessment will be based on written as well as project / assignment/ group discussion/ role play/ debate etc.*

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## **UNITS OF STUDY**

### **UNIT 1: NATURE OF LANGUAGE**

- What is a language: first, second and foreign language?
- Language acquisition Vs language learning
- Principles of language teaching
- Language as a means of communication and thinking.
- Constructing knowledge in the classroom
- Understanding the importance of a language-rich classroom.

### **UNIT 2: LISTENING AND SPEAKING**

#### ***Developing/Improving Listening and Speaking Skills***

- Listening with comprehension to follow simple instructions, news bulletins public announcements, etc.
- Role of listening and speaking: function of language and how children use it as a tool
- telephonic conversations, classroom discussions, radio, T.V news, sports commentary etc
- pronunciation: RP phonology, speech organs, vowels, diphthongs and consonants
- Stress–word stress and sentence stress in connected speech
- Using dictionary for correct pronunciation and stress
- Greetings, introducing oneself and others, asking for and giving information, seeking and offering help, giving direction, inviting and responding to invitation, complaining, requesting, seeking permission, apologizing and thanking

#### ***Teaching Listening and Speaking Skills***

- Phonemic drills (with the use of minimal pairs e.g., bit, beat etc.)
- Organizing listening and speaking activities: rhymes, chants, songs, use of stories, poems, role play and dramatization
- Organizing listening and speaking activities in the classroom.

### **UNIT 3: READING**

#### ***Acquisition of Reading Skills***

- Reading with comprehension different types of texts–newspapers, magazines, text book materials, stories, essays and one act plays.
  - Reading for global and local comprehension
-

- Attributes of a good readers ( good readers – read a lot, read silently, infer word meanings, use effective reading strategies such as skimming and scanning, extracting relevant information from the book)
- Type of reading – Intensive and Extensive
- Analyses and extrapolation
- Discourse analysis
- Using reading as a tool for reference skills i.e. use of dictionary, encyclopedia and internet

### ***Teaching Reading Skills***

- Creating an environment for reading – reading clubs, class libraries
- Reading aloud and silent reading
- Scaffolding: concept and activities
- Reading different texts types like stories, poems, riddles, jokes, and instructions for games, announcements, posters and notices.

## **UNIT 4: WRITING**

### ***Improving Writing Skills***

- Writing for communication – writing a paragraph: identifying a topic sentence, arranging sentences in a logical order and joining them with linking words and phrases Different forms of writing–letters (application, complaint, permission, invitation), messages, notices and posters, e-mail.
- Genre writing (Style of literature)
- Doing the above to experience the process of writing: brainstorming, drafting, editing, conferencing, modifying, revising, publishing
- Using writing frames and guided writing processes

### ***Teaching Writing Skills***

- Writing as process
- Mechanics of writing(strokes and curves, capital and small, cursive and print script, punctuation)
- Controlled/guided writing(verbal and visual inputs)
- Free and creative writing

## **UNIT 5: GRAMMAR**

Integrated grammar exercise:

- Parts of speech; Phrases; Verbs
  - Kinds of sentences; Subject-verb agreement; Time and Tenses; Clauses and Connectors
-

- Non-finites; Voices; Narration; punctuation; determiners; modal auxiliaries; question forms

### **ESSENTIAL READINGS**

1. Goodman, Sharon (1996) 'Visual English' 38-59 in Redesigning English: New text, new identities Sharon Goodman and David Graddol Routledge: London.
2. Lightbown, P. M & Spada, N. (1999). How Languages are Learned Oxford University Press: Oxford.
3. Maley, A. and A. Duff (1991) Drama techniques in language learning: A resourcebook of communication activities for language teachers (2nd ed.). Cambridge University Press: Cambridge.
4. Morgan, J. and Rinvogluciri, M. (1983). Once upon a time: Using stories in the language classroom. Cambridge University Press: Cambridge.
5. Wright, A. (1989). Pictures for Language Learning. Cambridge University Press: Cambridge.
6. <http://www.usingenglish.com/handouts/>
7. Sullivan, Mary (2008) Lessons for Guided Writing. Scholastic

### **ADVANCED READINGS**

1. Hunsaker, R.A. (1990) Understanding and developing the skills of oral communication: speaking and listening, 2nd ed. New York, NY: Harper Collins.
2. Parrot M. (1993) Tasks for language teachers Cambridge: .Cambridge University Press: Cambridge.
3. Richards, J. & and C. Lockhart, C. (1994) Reflective Teaching in Second Language Classrooms. Cambridge: Cambridge University Press: Cambridge.
4. Slatterly, M. & and J. Willis, J. (2001) English for primary teachers: A handbook of activities & classroom language. Oxford: Oxford University Press: Oxford

**Expertise Specialization:** *Master's degree in English Literature with a knowledge of Linguistics.*

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**CONTENT-BASED PEDAGOGY IN MATHEMATICS I**

<b>Maximum Marks</b>	<b>100</b>
<b>Internal</b>	<b>30</b>
<b>External</b>	<b>70</b>
<b>Contact Periods/week</b>	<b>4</b>

**RATIONALE AND AIM**

When children come to school, they are already familiar with mathematics and are using it in their own ways. In school they come across a systematic treatment of mathematics which at times is in conflict with their internalized processes. It is important for teachers to understand these conflicts and differences for effective learning.

In the Position Paper produced by the National Focus Group on Teaching of Mathematics (NCERT, 2006) it was said, “Mathematics education relies very heavily on the preparation that the teacher has, in her own understanding of mathematics, and in her bag of pedagogic techniques”. Every teacher needs to develop her understanding of mathematics afresh from the point of view that takes in account the processes in which learning takes place in children’s’ mind. Teachers need to be aware of the ways in which students think so that they can design and adapt their teaching approaches to deal with the alternative conceptions of mathematical knowledge of young learners.

The aim of the course is to sensitize prospective teachers that, not only do they need to reflect on their own knowledge of mathematical content taught at the primary level but they also need to connect to children and their experiences. Engagement with this course should enable prospective teachers to learn and reflect on what research has to say about children and their mathematics education and use it to promote learning.

**SPECIFIC OBJECTIVES*****To help student-teachers:***

- Reflect on what is mathematics, by actually “doing” mathematics-spotting and exploring patterns in a calendar, a multiplication table and other such number matrices.
  - reflect on why we need to learn mathematics
-



- reflect on the fact that mathematics is a subject that everyone can do and enjoy
- develop deeper insights into the content areas of mathematics at the primary level
- become aware of factors that impact on the process of acquisition of mathematical knowledge
- acquire sensitive student-teachers about the ways in which children respond to mathematical knowledge
- become aware of the historical roots of the subject, and of great problems that mathematicians have grappled with in past centuries, which have served as guide posts in the development of the subject; to make student-teachers aware of the fact that mathematics is a human endeavour
- become aware of the exploratory nature of the subject, and the fact that mathematics is "work in progress" and not a "finished product"
- gain awareness of the aesthetic and fun side of mathematics, and its rootedness in pattern, rhythm and play, through exposure to mosaic, *rangoli*, *kolam*, number games and puzzles
- gain facility in hand-on activities such as paper folding and model making
- Develop skills, have deeper insights, acquire appropriate attitudes, learn effective strategies that promote effective children's learning.

### **MODE OF TRANSACTION**

- Prospective teachers to be engaged in discussions on observed children's work in order to acquire an understanding how children respond to mathematical knowledge
  - Prospective Teachers in groups develop concept maps to understand linkages and relationships between various mathematical concepts and to imbibe the importance of team work
  - Reading of texts (suggested as discussion) with dialogue to understand theory from the point of view of issues raised
  - Collecting historical samples of mathematical knowledge (such as ways to multiply in different cultures) and reflecting on them
  - Performing simple mathematical experiments and investigations, with numbers or geometric shapes
  - Preparing mathematical models, particularly geometric – paper folding, straw or string models of polyhedra, tessellations, etc
  - Critically examining teaching-learning materials through presentations
-

## **UNITS OF STUDY**

### **UNIT 1: PEDAGOGICAL CONTENT KNOWLEDGE**

- **Number System:** Types of numbers, properties, place value, arithmetic operation, factors and multiples (HCF and LCM), fraction: types of fraction, comparing, representation in number line, operations, using paper folding to show operations in fraction, its simple application, decimals.
- **Space and Shape:** Geometric shapes, construction of geometric shapes through paper folding, Symmetry, Polyhedra, Tessellations, *Kolam, Rangoli*, Mosaic, Islamic architecture
- **Measurement:** The idea of unit, length, area, volume, weight, time, money, temperature, their conversion and its application.
- **Data Handling:** Sorting, Classification, Tabling, Reading information from simple graphs

### **UNIT 2: PERSPECTIVE ABOUT MATHEMATICAL KNOWLEDGE**

- Nature and Objectives of Teaching Mathematics at the Elementary School stage.
- Methods of Teaching Mathematics: Play way method, Inductive method, Deductive method, Project method.
- **Techniques of teaching Mathematics:** Oral work, Written work, Drill work
- Effect of socio-cultural background of children on mathematical knowledge

### **UNIT 3: CHILDREN'S CONCEPTUALIZATION OF MATHEMATICS**

- **Theories of mathematics learning:** Piaget, Dienes, Skemp, Ausable, Bruner, Vygotsky (focus on any three – maybe Piaget, Dienes and Skemp)
- Life history of three Mathematicians: Aryabhatta, Ramanujam, Bhaskara
- Role of language of communication in mathematics classroom.

### **UNIT 4: ASPECTS OF TEACHING MATHEMATICS**

- Planning for teaching
- Lesson Planning: its need, importance and characteristics.
- Hidden curriculum: social justice, gender differences, individual differences, inclusive environment

### **UNIT 5: ASSESSMENT/EVALUATION IN MATHEMATICS**

- Purpose of assessment/ need for Evaluation
  - Planning assessment
-

- Assessment tools
- Evaluation of performance: Formative and Summative
- Performance indicators: scholastic areas and co-scholastic areas.
- Life Skills” thinking skills, social skills, emotional skills, attitudes and values
- Grading system

### **SUGGESTED ACTIVITIES FOR INTERNAL ASSESSMENT**

- Prepare a paper pencil test on any topic of your choice at primary level.
- Prepare a working model
- Prepare a geometrical shape through paper folding and cutting
- Prepare a write-up about one of the Indian Mathematician and their contributions.
- Prepare an activity based chart based on Number Series and Number Pattern.
- Prepare a Continuous Comprehensive Evaluation Report Card of a child during Teaching Practice.

### **ESSENTIAL READINGS**

1. Haylock, D. (2006) Mathematics Explained for Primary teachers. Sage : NewDelhi.
2. Lieback, P. (1984). How children learn mathematics: a guide for parents and teachers. Penguin: London.
3. Olson, T. A. Mathematics Through Paper Folding. Arvind Gupta's toys bookGallery. <http://gyanpedia.in/tft/Resources/books/paperfolding.pdf>
4. Post, Thomas, R. (1992) Teaching Mathematics in Grades K-8, Research-BasedMethods. California: Allyn and Bacon.
5. Skemp, Richard R.(1989) Mathematics in the Primary School. Roulledge: London
6. Srinivasan P K Romping in Numberland, National Book Trust: New Delhi. <http://gyanpedia.in/tft/Resources/books/rompinginnumberlandeng.pdf>
7. Srinivasan P K Number Fun With a Calendar, Arvind Gupta's toys book Gallery. <http://gyanpedia.in/tft/Resources/books/calender.pdf>
8. Srinivasan P. K. Math Club Activities, Arvind Gupta's toys book Gallery <http://gyanpedia.in/tft/Resources/books/pkshindu.pdf>.
9. Zevenbergen, R., et al. (2005), Teaching Mathematics in Primary Schools. Allen &Unwin: Australia (First South Asian Edition).

### **READINGS FOR DISCUSSION**

1. Carraher, T. N., et al. (1988) Mathematical concepts in everyday life. In G. B. Saxe& M. Gearhart (ed) Children’s mathematics. New Directions for ChildDevelopment. Jossey-Bass: San Francisco.
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2. IGNOU, AMT – 01 Teaching of Primary School Mathematics. IGNOU: New Delhi.
3. IGNOU, LMT – 01, Learning Mathematics. IGNOU: New Delhi.
4. NCERT (2005) NCF 2005 Position Paper on Mathematics NCERT: New Delhi
5. Paul Lockhart, Lackhart's Lament <http://www.maa.org/devlin/LockhartsLament.pdf>
6. Skemp, R. (1978) Relational understanding and instrumental understanding. Arithmetic Teacher
7. Wood, David. (1998). The Mathematical Mind. In How Children Think and Learn. Blackwell Publishing: UK.

### **ADVANCED READINGS**

1. Ball, D. Let. al. (2008). Content Knowledge for Teaching: What Makes It Special? Journal of Teacher Education.
2. Briggs, M. and Davis, S. (2007). Creative Teaching: Mathematics in the early years and primary classroom, Routledge: UK.
3. Douglas, H. Clements, Julie, S. (2009). Learning and Teaching Early Math: The Learning Trajectories Approach Routledge: UK
4. Nunes, T. and P. Bryant, (ed) (1996). Children doing mathematics. Blackwell : UK
5. Orton A. (2004). Learning Mathematics, issues, theory and classroom practice. Continuum: London.
6. Richard R.S. (2002) Understanding mathematical symbolism in Mathematics In Primary Schools. Routledge: UK.

**Expertise Specialization:** *Master's degree in Mathematics and an understanding of mathematics education at the primary and upper primary level*

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**CONTENT-BASED PEDAGOGY IN EVS (SCIENCE)-I**

<b>Maximum Marks</b>	<b>75</b>
<b>Internal</b>	<b>25</b>
<b>External</b>	<b>50</b>
<b>Contact Periods/week</b>	<b>4</b>

**RATIONALE AND AIM**

The aim of this course is to encourage students to engage with the nature of science and relate it with inquiry in this area. This will involve challenging students' misconceptions related to concepts in science and help them advance towards a better understanding. They will need a space to freely express their ideas about various aspects of the nature of science and reflect on classroom practices based on this understanding. The students should be able to critically reflect on issues of gender and inclusive space in science education.

This course builds on the Pedagogy of EVS paper and helps student-teachers to reflect on the nature of the discipline of science and its implications for classroom transaction.

**SPECIFIC OBJECTIVES**

- To help student-teachers understand the scope of EVS and examine different perspectives of curriculum organization.
- To encourage students to revisit their own conceptual understanding of science
- To engage students with various aspects of the nature of science.
- To facilitate student-teachers to probe children's ideas in science and environmental studies
- To help students select and use appropriate teaching-learning and assessment strategies.
- To enable students to view science as an inclusive and a democratic enterprise.

**MODE OF TRANSACTION**

- EVS involves learning experiences *in, about* and *for* the environment
    - Education in the environment
    - Education about the environment
    - Education for the environment
  - Various teaching-learning methods used in EVS (for example):
-

- Class room based methods: Lecture Session, Concept Mapping, Group Discussions, Problem Solving, Brain Storming
- Out Door Methods: Observation, Demonstration, Experimentation, Field Visit, Survey and Interview, Action Projects.
- Creative Expression: Debate, Play building, Creative writing, Role play, Puppet Show, Teaching media and materials.

## **UNITS OF STUDY**

### **UNIT 1: CONCEPT OF SCIENCE AND ENVIRONMENT STUDIES**

- Elements of scientific knowledge: Science as one of the domains of knowledge
- Scientific method –Questioning, formulation of hypothesis, testing of hypothesis using observation, experiments and models, conclusion.
- Values associated with science.
- Development of scientific attitude
- Meaning, scope and importance of EVS as a curricular area at the primary level
- EVS as an integrated area of study that draws upon understanding from Science and Social Science

#### **Practical / Project**

- Interview with a local scientist to understand how they work
- Study any one of the following problems-Water resources, conservation and scarcity, Pollution-air, water and land.
- Sketch a village map, preparing a green file etc.

### **UNIT 2: UNDERSTANDING CHILDREN'S IDEAS**

- Concepts of Environmental Studies applied at elementary level.
- Perspectives in EVS Learning – Piaget and Vygotsky.
- Research on Children's Ideas – Preconceptions, Alternative Conceptions;
- Probing, documenting and analyzing children's ideas related to science concepts.

#### **Practical / Project**

- School text book analysis and identification of EVS learning Objectives.
- Comparisons, correlations with other subjects, discussions and seminars.

### **UNIT 3: CLASSROOM TRANSACTION**

- Objectives of teaching environmental studies at elementary level.
  - Ways of conducting inquiry: observation, activities, discussion and simple experiments and investigations
  - How to wrap up an inquiry-based learning session
-

- Science museums, field trips, projects and exhibition.
- Improvised apparatus and science kit.

#### **Practical / Project**

- Organizing Eco club, Eco Exhibitions, Nature walk, Guess Talks, Quiz, developing wall magazines
- Observation of EVS class at Elementary School, discussion with resource persons.

### **UNIT 4: THE WORLD OF LIVING**

- Diversity in life
- Basic unit of life: Cell structure and division
- Life processes: Digestion, respiration, circulation, excretion and nervous system
- Reproduction, heredity and evolution

#### **Practical / Project**

- All the suggested practical/activities in the NCERT text book from class III to VIII.
- Study of local flora and fauna.
- Use of ICT in presentation of simple content idea

### **UNIT 5: MATTER AND ITS NATURE**

- basic units of matter: their structure, atoms, molecules
- Mole concepts
- Chemical elements: periodic table

#### **Practical / Project**

- All the suggested practical /activities in the NCERT text book from class III to VIII.
- Use of ICT in presentation of simple content idea

### **ESSENTIAL READINGS**

1. Bloom, J. W. (2006) *Creating a Classroom Community of Young Scientists* Routledge: New York.
  2. Driver, Rosalind, et. al. (1994) *Making Sense of Secondary Science: Research into Children's Ideas*. Routledge Falmer: New York.
  3. Harlen, W. (2006) *Teaching, Learning and Assessing Science 5 – 12*. Sage: UK.
  4. Harlen, W. and J. Elstgeest (1992). *UNESCO Source Book for Science in the Primary School*, NBT: New Delhi.
  5. Martin, D. J. (2009) *Elementary Science Methods- A Constructivist Approach*. Thomson Wadsworth: Belmont CA. 5<sup>th</sup> Edition.
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## **READINGS FOR DISCUSSION**

1. Driver, Rosalind. (1996) *Young People's Images of Science*, Milton Keynes- Open University Press: London.
2. Rampal, Anita (1992) Images of Science and Scientists a study of School Teachers' Views. I. Characteristics of Scientists. *Science Education*.
3. Griffin, J. (2004) Research on students and Museums: Looking More Closely at the students in School Groups. *Science Education*.
4. Wellington, J. J. & Osborne, J. (2001) *Language and Literacy in Science Education*. Open University Press: California.
5. NCERT, (2006) *Position Paper on Science Education*, NCERT: New Delhi.
6. Brickhouse, N. (2001) Embodying Science: A Feminist Perspective. *Journal of Research in Science Teaching*.
7. Kurth, A., et. al. (2002) The Case of Calra: Dilemmas of helping all students to understand Science, *Science Education*.
8. Shiva, V. (2002) *Water Wars* South end press: Cambridge, USA

## **ADVANCED READINGS**

1. Kang, S et al (2004) Examining Students' Views on Nature of Science: Results from Korean 6<sup>th</sup>, 8<sup>th</sup> and 10<sup>th</sup> Grades, *Science Education*.
2. McComas, William F. (ed.) (1998) *The Nature of Science in Science Education: Rationales and Strategies*, Kluwer Academic Publishers: Netherland
3. Okasha, S. (2002) *Philosophy of Science—A very short Introduction* Oxford University Press: UK.
4. Schwartz, S. Renee et. al. (2004) Developing Views of Nature of Science in Authentic context: An explicit approach of Bridging the Gap between Nature of Science and Scientific Inquiry. *Science Education*.
5. Liewellyn, D. (2005) *Teaching High School Science through Inquiry – A Case Study Approach*. Corwin Press and NSTA Press: California
6. Osborne Jonathan F. (1996) Beyond Constructivism. *Science Education*.
7. Aikenhead, G. (2001) Integrating Western and Aboriginal Sciences: Cross Cultural Science Teaching. *Research in Science Education*
8. Choksi, B. & Natarajan, C. (2007) *The epiSTEME Reviews- Research Trends in Science, Technology and Mathematics Education*. Macmillan : New Delhi
9. Rampal, A. (1993). School science in search of a democratic order? In Kumar, K. (Ed.) *Democracy and Education in India*. NMML: New Delhi.

## **TEXTBOOKS AND REPORTS**

1. Bal Vigyanik, *Text books for Science, Class VI – VIII*. Madhya Pradesh: Eklavya
  2. Centre for Science and Environment, *Citizen's reports*, New Delhi.
  3. NCERT, (2005). *Syllabus for Classes at the Elementary Level*. vol. I, NCERT: New Delhi.
  4. NCERT, (2008). *Text books for Science, Class VI – VIII*. NCERT: New Delhi.
  5. NCERT (2011) *Pedagogy of Science Part I*. NCERT: New Delhi
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**Expertise/ Specialization:** *Master's degree in Science and Education.*

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**CONTENT-BASED PEDAGOGY IN EVS (SOCIAL SCIENCE)-I**

<b>Maximum Marks</b>	<b>75</b>
<b>Internal</b>	<b>25</b>
<b>External</b>	<b>50</b>
<b>Contact Periods/week</b>	<b>4</b>

**RATIONALE AND AIM**

The main aim of this course is to prepare teachers who understand the philosophical and epistemological basis of EVS as a composite area of study that draws upon sciences and social sciences.

The content related to concepts in science and social science is embedded within the course. As students understand children's ideas, it is also an opportunity for the teacher educator to help them revisit and challenge their own conceptual understanding, identify misconceptions and advance towards a better understanding.

The contents of social science as a school subject are based on a certain understanding about their nature and purposes. Instead of treating these as natural and given, this course introduces student-teachers to different perspectives about these subjects. It would also examine the ways in which different visions and understanding of the subjects get reflected in different curriculum, syllabi and textbooks. It asks and suggests how social sciences can develop capacities to critically understand society and social reality around us with reference to time, space and power, structures, institutions, processes and relationships.

**SPECIFIC OBJECTIVES**

***This course would help the learner to :***

- help student-teachers understand the scope of EVS and examine different perspectives of curriculum organization.
  - facilitate student-teachers to probe children's ideas in science and social science
  - develop knowledge and skills to critically understand and analyse the society we live in and the individual-society interface, by drawing upon the disciplines of sociology, history, geography, political science, economics and psychology.
  - build skills to gather, interpret and analyse data
  - critically analyse social science school curriculum, syllabus and textbooks
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- know and use different pedagogies to transact the curriculum in a manner that enhances curiosity of children to enquire about social phenomenon and develops their capacities to reflect on the existing society, its institutions and practices in a critical, independent and thoughtful manner
- develop capacities to uphold human and constitutional values of freedom, equality, justice and respect for difference and diversity and challenge the social forces that threaten these values

## **UNITS OF STUDY**

### **UNIT 1:NATURE OF SOCIAL SCIENCES**

- Difference between Social Science and Social Studies.
- Different approaches to organize Social Sciences and relation between Social Science, Science, language and mathematics.
- Role of Social Science in developing children understanding of the social realities like – Rights and duties towards their society
- Social evils like corruption, poverty, unemployment, drug addiction etc.

*It is suggested that the readings be given to students to study at home and then read together and discussed in class by the teacher educator.*

#### **Practical / Project**

- Sharing their own experiences in schools regarding Social Science Teaching and reporting
- Library work and use of Internet to collect information related to teaching of Social Science in Schools- reporting.
- Observation and reporting of social science lessons by a regular class room teacher and reporting

### **UNIT 2:IMPORTANT CONCEPTS OF SOCIAL SCIENCES**

- Understanding change and continuity, interconnections, time perspective and chronology in India from the earliest times to the present
- Socio-spatial interaction through
- Society: social structure, social stratification, community and groups,
- Civilization: history, culture-Indus Valley Civilization
- India's freedom struggle from 1885-1920

*It is suggested that any three consecutive chapters each from history, geography and social and political life sections of classes VI, VII and VIII from the NCERT and/or the Eklavya books be used for detailed class room work on important concepts of social sciences*

#### **Practical / Project**

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- Meaningful reorganization of content to facilitate unit planning and teaching.
- Map reading, preparation and study of maps, time lines and arranging exhibits.
- Field visits and reporting
- Class talk – by experts in various fields
- Organizing participation in local specific cultural events – folk art forms

### **UNIT 3: CHILDREN'S UNDERSTANDING- TEACHING-LEARNING MATERIALS & CLASSROOM PROCESSES**

- Cognitive development of concept formation among the children in middle and upper primary classes with reference to their age and socio-cultural context.
- Different types of teaching – learning materials for social sciences including community and local resources
- Analysis of different text books of social science to understand the perspective about the subject that informs them and how do they position children (look at use of pictures. Story, dialogue, discussion, experiments, maps, charts, comparison, time line)

#### **Practical / Project**

- Visit to community resource sites
- Preparation and submit a study report
- Preparation of scrap book (topic based)

### **UNIT 4: PEDAGOGY AND ASSESSMENT**

- Dominant method of evaluation in social sciences based on information recall- CCE in Social Science–why and how? Use of Formative & Summative Evaluation.
- Alternative ways to evaluate learning: basis of evaluation, types of questions, use of open book examination etc.
- Teaching methods: heuristics/discovery method, project method, use of narration, dialogue and discussion in social science; Use of persons experimental knowledge between fact and opinion

*It is suggested that the readings be given to students to study at home and then read together and discussed in class by the educator.*

#### **Practical / Project**

- Collecting information related to CCE from www
- Collecting and use of tools to assess values, performance and attitudes.

### **UNIT 5: FIELD-BASED PROJECT: SOME SUGGESTED PROJECTS (ANY TWO)**

- Critique a historical film/serial or novel from the view point of authenticity. Use variety of other sources like for movies, books, newspaper article, exhibitions, and
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museums to appraise on authenticity. Understand the complex nature of 'facts', their construction and their differences from 'opinion'.

- Map any locality based on the distance and directional relationship from your educational institution. Mark out institutions, historical monuments, banks, local market, and other points of interest. Also speak with residents and other people who inhabit the same space to explore the oral history, and the distinctiveness of the particular location. Try to see the linkages between various institutions that exist in this locality
- Explore and collect some books, movies, cartoons, magazines and journals of 1950s and the present times. Study them carefully to grasp the issues of a common person. Show the changes that can be witnessed in the concerns and in the lives of a common person. Can the reasons for these changes be traced to the economics, polity, history and socio-cultural circumstances of our nation? Present your understanding in the form of a report/ poem/ collage/ narratives/ drama, or any other medium you wish to use.
- Through field visits, understand a slum in terms of its economics, subsistence, politics and historical memories. Develop connections between these factors to understand the nature of their present concerns and problems.
- Trace two final consumer products from their raw form. Study the processes that are involved in changing it to the final, finished product. Study how various factors of geography, economics, politics and history have influenced them. Also see the intermeshed relationship that exists between them ( A chapter 'bidi or bidi Banane wale" in Eklavya's class VII social science civics textbook and forest village Pahawadi in class VI seen together can be read as an example)

### **ESSENTIAL READINGS**

1. Batra, Poonam (2010) Introduction in Poonam Batra (ed) (2010) Social Science Learning in Schools: Perspective and Challenges, Sage: New Delhi.
  2. Bhattacharya, Neeladhari (2009). Teaching History in Schools: The Politics of Textbooks in India. History Workshop Journal.
  3. NCERT, (2006). Position Paper National Focus Group on Teaching of Social Sciences. NCERT: New Delhi.
  4. Social Science Textbooks for classes VI, VII and VIII, New Delhi: NCERT 2006-2008.
  5. Social science Textbooks for classes VI, VII and VIII, Madhya Pradesh: Eklavya. 1993-2004.
  6. Tolstoy, Lev (1987) Shikshashaastriya Rachnayein, Pragati Prakashan, 1987; excerpts on experiences of history teaching in Sandarbha, 20, Nov.-Dec. 1997.
  7. Eklavya Team (2010) Dynamics of Knowledge and Praxis: A View from the Field in Batra, Poonam (ed) (2010) Social Science Learning in Schools: Perspective and Challenges, Sage: New Delhi.
  8. Articles on Social Science Education in Sandarbha (available as a separate collection from Eklavya, Bhopal):
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- a. Paliwal Rashmi and Yemuna Sunny (1994) Aaya Samajh Mein. Sandarbha 1, September 1994; Sandarbha 2, November-December, 1994.
  - b. Madan, Amman (1995) Naagrik Shaastra ki Pustakon Mein Naagrikon ki Chhavi. Sandarbha 5, May-June 1995.
  - c. Paliwal, Rashmi (1995) Jo Gaurishankar ki Samajh Mein na Aaye. Sandarbha 7, September-October, 1995.
  - d. Sunny, Yemuna (1996) Bhoogol, Schooli Kitaabein aur Kuchha Anubhav. Sandarbha 8-9, November-February, 1995-96.
  - e. Paliwal, Rashmi (1996) Ek Kitaab Nai Bhi Purani Bhi. Sandarbha 1, March-April, 1996.
  - f. Paliwal, Rashmi (1997) Paryaavaran Kyaa, Kyaa Nahin. Sandarbha 19, September-October.
9. Batra, Poonam and Disha Nawani (2010) Social Science Texts: A Pedagogic Perspective in Batra, Poonam. (ed.) (2010). Social Science Learning in Schools: Perspective and Challenges, Sage: New Delhi.
  10. Paliwal, R. (2010) Assessment of Social Science in Schools: Our Experiences, Experiments and Learning, Learning Curve, Issue XV, August 2010, Azim Premji Foundation: Bangalore.
  11. Jayashree. (2010) Beyond Retention: Meaningful Assessment in Social Science, Learning Curve, Issue XV, August 2010, Azim Premji Foundation: Bangalore.
  12. Sriparna (2010) Role of Projects, Field-work and Discovery in Assessment, Learning Curve, Issue XV, August 2010, Azim Premji Foundation: Bangalore.

### **ADVANCED READINGS**

1. Kumar, Krishna. (1996) Learning from Conflict, Orient Longman: New Delhi.
  2. Ratnagar, Shireen. (2001) Bhartiya Itihaas Ke Srote. Bhag 1, Eklavya: Bhopal.
  3. Pathak, Avijit (2002) Social Implications of Schooling: Knowledge, Pedagogy and Consciousness. Rainbow Publishers: Delhi. Ch: Sociology of School Knowledge: Texts and Ideology.
  4. Pathak, Avijit (2009) The Moral Quest in Education,
  5. Balagopalan, Sarda (2009) Unity in Diversity: Diversity, Social Cohesion and the Pedagogical Project of the Indian State in S. Vandiyar et. al. (ed.) Thinking Diversity, Building Cohesion: a transnational dialogue on education, Rozenburg Publications: Amsterdam.
  6. Billinge, M., et al. (ed) (1984). Recollections of a Revolution: Geography as spatial science, Macmillan: London. .
  7. Carr, E. H. (1961). What is History? Penguin: England. .
  8. Geetha, V., Selvam S., Bhog D. (2009). Textbook Regimes: A Feminist Critique of Nation and Identity, Tamilnadu, Nirantar: Delhi.
  9. Hursh, W., D. and E. Wayne Ross, (2000). Democratic Social Education: Social Studies for Social Change, Falmer Press: New York. Ch 9: Not only by our Words: Connecting the Pedagogy of Paulo Freire with the Social Studies Classroom.
  10. Mehlinger, Howard D. (ed.) (1981) UNESCO Handbook of Social Studies. UNESCO Publications: France.
  11. Ross, E. Wayne (ed.) (2006) The Social Studies Curriculum: Purposes, Problems, and Possibilities. Albany: State University of New York Press: New York
  12. Paliwal, Rashmi and C.N. Subramaniam, (2006) Contextualizing the Curriculum, Contemporary Education Dialogue, Volume 4:1, Monsoon 2006
  13. Shiksha Vimarsha Itihaas Shikshan: Visheshank, November-December 2008, Digantar, Jaipur.
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**Expertise/ Specialization:** *Masters degree in Social Science*

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अधिकतम अंक –75

बाह्य –50

आन्तरिक –25

कालांश प्रति सप्ताह – 4

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बच्चे की सम्पूर्ण शिक्षा प्रक्रिया में भाषा का विशेष महत्व है। भाषा न केवल संप्रेषण का माध्यम है बल्कि वह अन्य विषयों के अध्ययन-अध्यापन का माध्यम भी है। हिन्दी भाषा अपने विविध रूप-रंग में विद्यालयी पाठ्यचर्या में एक महत्वपूर्ण स्थान रखती है। हिन्दी भाषा सीखने-सिखाने की प्रक्रिया में यह जरूरी की उस भाषा की संरचना से परिचित हुआ जाए और उसका अनुप्रयोग करते हुए भाषा-प्रयोग की दक्षता में निखार लाया जाए। विभिन्न परिस्थितियों में स्वयं को स्पष्ट एवं प्रभावी तरीके से अभिव्यक्त करने की कला में दक्षता हासिल करना हिंदी भाषा-शिक्षण का सर्वोपरि उद्देश्य है। हिंदी साहित्य की विभिन्न विधाओं का परिचय प्राप्त करते हुए उसकी सराहना तथा अनुभूति हिंदी भाषा-शिक्षण का एक अन्य महत्वपूर्ण पक्ष है। एक हिन्दी भाषा शिक्षक में यह योग्यता हानी चाहिए कि वह हिन्दी भाषा की प्रकृति, शिक्षण उद्देश्यों तथा प्रभावी विधियों से परिचित होकर कक्षा में उनका प्रभावी प्रयोग कर सक। साथ ही विभिन्न प्रकार की शिक्षण-सामग्री, शैक्षिक क्रियाओं, गतिविधियों के आयोजन में दक्षता प्राप्त करना भी उतना ही जरूरी है। हिन्दी शिक्षण का संप्रेषणपरक उपागम अपनाते हुए बेहतर शिक्षण-कार्य में उसकी परिणति ही इस पाठ्यक्रम का उद्देश्य है।

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- हिन्दी भाषा के संरचनागत तत्वों (ध्वनि, शब्द, वाक्य, अर्थ) से परिचय प्राप्त करना।
- हिन्दी भाषा-शिक्षण के उद्देश्यों से परिचय करना।



- हिन्दी भाषा के चार आधारभूत कौशलों का विकसित करना (सुनना, बोलना, पढ़ना, लिखना) ।
- विभिन्न साहित्यिक विधाओं का सामान्य परिचय प्राप्त करते हुए उनका प्रभावी शिक्षण करना ।
- हिन्दी भाषा के संदर्भ में बच्चों की भाषा दक्षता का सतत एवं व्यापक मूल्यांकन करना ।
- स्व-अध्ययन के लिए विद्यार्थियों को प्रेरित करना ।
- विभिन्न स्तरों पर हिंदी भाषा-शिक्षण हेतु अनेक प्रकार की शैक्षिक सामग्री, बाल साहित्य एवं इतर सामग्री की उपयोगिता समझते हुए उसका प्रभावी प्रयोग करना ।
- भाषा की पाठ्यपुस्तक का महत्व और आवश्यकता पर चिंतन करते हुए उसका आलोचनात्मक मूल्यांकन करना ।

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- हिन्दी की ध्वनि व्यवस्था वर्णमाला: स्वर, व्यंजन, अनुस्वार, अनुनासिक, बलाघात, संयुक्त व्यंजन, विसर्ग, “र” के विविध रूप, उच्चारण प्रक्रिया, स्थान व प्रयत्न ।
- देवनागरी लिपि तथा हिंदी वर्तनी देवनागरी लिपि का स्वरूप, प्रकृति, विशेषताएं, हिन्दी वर्णों के मानक और वैकल्पिक रूप, हिन्दी वर्तनी के मानक रूप ।
- शब्द भण्डार – शब्दों के प्रकार : तत्सम, तदभव, देशज एवं विदेशी, विपरीतार्थक, अनेकार्थी, समानार्थी, मुहावरे और लोकोक्तियों के अर्थ तथा प्रयोग, संधि, समास, उपसर्ग, प्रत्यय, शब्दकोष ।
- विकारी और अविकारी शब्द – संज्ञा, सर्वनाम, विशेषण, क्रिया-निशेषण, समुच्चयबोधक अव्यय, संबोधक अव्यय, विस्मय-सूचक अव्यय एवं शैली, वचन, कारक का सोदाहरण स्पष्टीकरण ।
- वाक्य संरचना – अर्थ के आधार पर वाक्य श्रेणियों के आधार पर वाक्य भेद, वाक्य प्रयोग, विरामाचिह्नित प्रयोग कौशल रचना के आधार पर

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- हिंदी भाषा का अर्थ, विकास और महत्व
- हिंदी की उपभाषाएं एवं बोलियाँ
- प्रथम भाषा, द्वितीय भाषा एवं तृतीय भाषा के रूप में हिंदी की स्थिति
- अण्डमान एवं निकोबार द्वीप समूह में हिंदी का विकास

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- हिन्दी शिक्षण उन्नयन से सम्बन्धित प्रमुख संस्थाएं—परिचय तथा कार्य (एन.सी.आर.टी. केन्द्रीय हिन्दी संस्थान, केन्द्रीय हिन्दी निदेशालय तथा दक्षिण हिन्दी प्रचार सभा)
- हिन्दी भाषा में प्रकाशित प्रमुख पत्र— पत्रिकाएं तथा बाल—साहित्य — प्रमुख पत्र— पत्रिकाओं तथा बाल—साहित्य का सामान्य परिचय ।

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- श्रवण—कौशल :श्रवण की प्रकृति, उद्देश्य तथा अपेक्षित व्यवहार परिवर्तन, श्रवण शिक्षण के विधियाँ, श्रवण शक्ति के विकास का मूल्यांकन, श्रवण दोष कारण एवं सुधार के उपाय ।
- मौखिक अभिव्यक्ति कौशल —मौखिक अभिव्यक्ति की परिभाषा, उद्देश्य, अपेक्षित व्यवहार परिवर्तन, अभिव्यक्ति कौशल के विविध पक्ष —शुद्ध उच्चारण, गति, बलाघात, अनुतान तथा हाव—भाव, मौखिक अभिव्यक्ति के विविध रूप—विवरण, कहानी, संवाद, नाटक, कविता—पाठ, भाषण, वाद—विवाद तथा अवसरानुकूल विचारों की मौखिक अभिव्यक्ति (धन्यवाद ज्ञापन, स्वागत परचय आदि), शिक्षण विधियाँ, निरंतर एवं सतत् मूल्यांकन, उच्चारण तथा अभिव्यक्ति दोष, कारण एवं सुधार के उपाय ।
- पठन के प्रकार — मौन एवं सस्वर, पठन—शिक्षण विधियाँ, पठन कार्य का पठन कौशल : पठन प्रक्रिया की प्रकृति और महत्व, पठनारम्भ योग्यता, निरंतर एवं सतत् मूल्यांकन , लेखन— दोष, कारण एवं सुधार के उपाय ।

- लेखन कौशल –लेखन की प्रकृति, लेखनारम्भ योग्यता, लेखन के प्रकार–सुलेख, अनुलेख एवं श्रुतलेख, लेखन–शिक्षण विधियाँ, लेखन कार्य का निरंतर एवं सतत् मूल्यांकन, लेखन–दोष, कारण एवं सुधार के उपाय।
- पाठ योजना : अर्थ उद्देश्य, रूप–रेखा, शिक्षण कौशल ।

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- उपराचातात्मक अथवा निदानात्मक शिक्षण–स्वरूप और महत्व, विकलांगता के प्रकार, कारण और निवारण, अध्यापकों के द्वारा उपचरात्मक प्रयास
- मातृभाषा न्यूनतम अधिगम स्तर – (कक्षा 1 से 5 तक के लिए)– अर्थ, प्रशासनिक कदम, सुधार, मातृभाषा में न्यूनतम अधिगम स्तर

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**प्रशिक्षु : अध्यापकों द्वारा करणीय सुझाव ।**

- पाठ्यपुस्तक आधारित शब्द–सूची निर्माण : समानार्थी, विपरीतार्थी और मिलते–जुलते ध्वनियों वाले शब्द, शब्दों की बनावट और भेद, मुहावरे–लोकोक्तियाँ, अर्थ व प्रयोग, वर्तनी संबंधी(उच्चारण–प्रक्रिया) अनुस्वार व अनुनासिक शब्दों का संकलन तथा चार्ट, फ्लैश कार्ड बनाना ।
- स्वचरित कहानी व कविता संग्रह ।
- उपसर्ग–प्रत्यय से बने शब्दों की सूची ।
- पाठ्यपुस्तक समीक्षा ।
- बाल–साहित्य अध्ययन व समीक्षा, बाल–पत्रिका के नाम संपादक, संपादन स्थल, बाल साहित्यकारों के नाम ।
- मानक वर्ण एवं शब्द सूची ।
- हिंदी की दस पत्रिकाओं का संकलन ।
- अंडमान–निकोबार द्वीपसमूह में हिंदी के व्यावहारिक रूप का सर्वेक्षण और संक्षिप्त प्रस्तुतीकरण ।
- बालोपयोगी साहित्य, शिक्षापुस्तकों एवं पत्र–पत्रिकाओं को पढ़ने का अभ्यास
- किसी सामाजिक विषय पर नाटक प्रस्तुतीकरण ।

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- भाषा-खेल बनाना जैसे शब्द, अंत्याक्षरी, वर्ग, पहेलियाँ आदि ।
- चार्ट, बैनर पोस्टर, मुखौटे, कठपुतलियाँ, वर्ण-वृक्ष आदि तैयार करना ।
- कक्षा एक से आठवीं तक की हिन्दी पाठ्यपुस्तकों का गहन अध्ययन और व्याकरण अभ्यास

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- 1 प्रारंभिक स्तर पर हिंदी शिक्षण-भाग 1 तथा 2-डॉ भगवती प्रसाद डिमरी, प्रकाशक-मान सिंह, आर्य बुक डिपो, 30, नाईवाला, करोल बाग, नई दिल्ली- 110005
- 2 भाषा-शिक्षण और प्रविधि-मनोरमा गुप्त-केंद्रीय हिंदी संस्थान, हिंदी संस्थान मार्ग, आगरा -5
- 3 हिंदी भाषा-शिक्षण-भाई योगेन्द्र जीत, विनोद पुस्तक मन्दिर-डॉ रांगेय राघव मार्ग, आगरा -2
- 4 मानक हिंदी व्याकरण और रचना, एन.सी.ई.आर.टी -नई दिल्ली
- 5 शिक्षार्थी हिन्दी शब्दकोश -संपादक-डॉ. हरदेव बाहरी, राजपाल एण्ड सन्ज, कश्मीरी गेटी, दिल्ली-110006
- 6 लोक भारती शब्दकोश - संपादक -आचार्य रामचन्द्र वर्मा लोकभारती प्रकाशन, महात्मा गाँधी मार्ग, इलाहाबाद
- 7 आधुनिक हिंदी व्याकरण और रचना  
- डॉ. वासुदेवनंदन प्रसाद  
- भारती भवन, पटना
- 8 भाषा विज्ञान-भोलानाथ तिवारी -इलाहाबाद, किताब महल
- 9 देवनागरी लिपि और मानक वर्तनी  
- केन्द्रीय हिन्दी निदेशालय  
- आर के पुरम सेक्टर - नई दिल्ली
- 10 हिन्दी प्रचार प्रसार  
हिन्दी सेवी संस्थाएँ

} प्रकाशक- राष्ट्रभाषा प्रचार समिति  
हिन्दी नगर  
वर्धा -महाराष्ट्र

**Expertise/Specialization:** Master's degree in Hindi and Education with an understanding of language education at the primary and upper primary level

Code: **PrC1**

FIRST YEAR

## **EDUCATION FOR HOLISTIC DEVELOPMENT - I**

<b>Maximum Marks</b>	<b>50</b>
<b>External</b>	<b>: 20 (10+10)</b>
<b>Internal</b>	<b>:30 (15+15)</b>
<b>Contact Periods/week</b>	<b>: 2</b>

### **SPECIFIC OBJECTIVES**

- To acquaint the prospective teachers regarding the importance of art education, health and nutrition education, physical education, work-centered education in holistic development of the learners.
  - To enable the prospective teachers to understand the necessity of work-centered education.
  - To know different forms of art and learning-teaching strategies for the elementary level learners.
  - Bring the arts into the centre of exploration, e.g. in visual arts: semiotics of the image/film/play/music; how is an image to be made meaning of; how can an image act as a starting point for an exploration?
  - To use appropriate methods and techniques for developing creativity and skills in free hand drawing, creating collage, using colours, papers etc by trainees.
  - Learn to challenge and shift one's own attitude and standpoint as one learns to understand multiple perspectives to empathise.
  - Identify and develop one's own creative potential.
  - Recognise the role of 'drama as education' in the elementary school
  - Learn to identify areas that are best suited for drama exploration
  - Examine through chosen themes, how learning can take place in the classroom through group drama exploration by a whole class of elementary school students
  - Explore the role of the teacher as creative guide in learning that is drama driven
  - Understanding the broad conception of work and work ethics.
  - Getting awareness about the precautions to be taken while including work within school.
  - Appreciating the importance of teachers in actively participating in all work assigned to children.
  - To make the pupil teacher understand the value concept, need and importance and scope of work experience.
  - To acquaint pupil teacher to understand different methods in skill development.
  - To develop the Practical Skill among students.
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- To develop the skills in planning a lesson.
- To acquaint Pupil Teachers to understand the aims and the objectives of Work Experience.

## **UNITS OF STUDY(PRACTICAL)**

### **UNIT 1:ART AND AESTHETICS EDUCATION**

- Free hand drawing and Composition of an imagined situation
- Creating a collage using images, bits, cutout from old magazines, news paper's etc.
- Art exercise using paper and water colours, paper and crayon, colour pencils, acrylic
- Exercise on: Lines, Forms, Compositions, Colours, Space division, Floor design, Alpana, Rangoli, Kolum etc using of different colour and materials
- Perspective drawing (simple perspective from Nature & Indoor objects)
- Design (Ornamental and Geometrical), Panel or Border design.
- Poster Book Cover/Banner/Greetings and Invitation cards.
- Collection of famous Indian Artists work with a note(Photographs/Picture), Photographs of Heritage Buildings of Indian with note, book covers.
- Visit of a Historical Place/ Museum/Art Galleries/Cultural Programme in their locality.
- Preparation of teaching aids.

### **UNIT 2: DRAMA AND MUSIC**

- To be familiar with the techniques of participating in school cultural programme, reading of a play, poetry reciting, how to make story, remembering of a script, background music and poster designing.
  - To know about renowned theater artist of A & N Islands and their contributions for promoting of theater in these islands.
  - To practice announcements in cultural programmes, use of stage props, feel the music and react accordingly, delivering a speech, nukkad natak.
  - use of stage, body movement, facial expression, voice of speech, makeup, costume and properties
  - Understanding the musical terms: Sangeet, Nad, Shruti, Svar, Saptak, Laya, Taal, Alankar, Arola, Avaroha, Murchana, Gram, Murki, Tjaat, Gamak etc
  - Classical Gharanas, life sketches: Pt. Omkarnath Thakur, Ustad Zakhir Hussain, Tansen, Pt. Vishnu Digambar Puluskar
  - Ragas (Yman, Bhairavi, Bilawal), Ragas practice of song
  - Folk tradition of India, Folk/Traditional/ Regional song and harvest songs
  - Svara Sadhna
  - Taal – Teental, Keherva, Dadra, Ek tal, rupaktaal, chartaal
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- National Anthem , Patriotic songs (Vande Mataram, Ramdhun, Sare Jahan se acha), Regional and Folk songs (Related to Harvest) etc...
- Practice of atleast 5 prayer songs and community songs
- Precise knowledge of any one instrument and basic knowledge of Indian instrument.
- Patiyala and agra, Bhopali, Bhairav, desh, bihag, raga bahar etc .

### UNIT 3:WORK EDUCATION

Taking up any four work based units.

Each unit would require student teachers to learn the skills related to the chosen work; come out with a finished product; and design a basic module for using this work as a pedagogic medium in helping children acquire knowledge, develop values and form multiple skills.

An indicative list of possible works that can be taken up is given. However colleges are free to take up any other work depending on interest, local resources, including required expertise.

- Cooking and nutrition with stress on local cuisine
- Processing & preserving foods, including traditional methods
- Tailoring, stitching, embroidery, knitting
- Preparation of herbal medicines, aromatics and cosmetics
- Nursery & Gardening
- Clay work/Pottery
- Making of toys, language, Science & Math kits
- Pen/Pencil stand
- Utility box with cardboard
- Making items from scrap of wood
- Making different items of out of waste
- Making file cover and Decorate it
- Fabric painting on sheet or cloth.
- Book Mark
- Scarp file- Feathers, Leaves and different stitches
- 6 charts of each teaching subject
- Make item from Ice-cream sticks, Match Box
- Use of drill machine
- Importance of Hammer and their uses
- Use of different tools:Screw Driver, Plier, Cutter
- Clay work

**Expertise specialization:** *Subject experts in the related area of teaching.*

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**SCHOOL BASED ACTIVITIES AND SUPERVISED  
PRACTICAL TEACHING PROGRAMME****Max Marks : 150****PRE-INTERNSHIP IN TEACHING**

Observing 10 lessons 2 in each method delivered by regular teachers with the help of observation schedule	<b>10 X 2 =20</b>
Observation of day-to-day school activities and preparation of comprehensive report highlighting working of the library, co-scholastic activities, games and sports, functioning of laboratory, school morning assembly etc	<b>15</b>
Availing atleast five substitute teaching opportunities in actual school situation	<b>5X 5 = 25</b>
Developing one lesson in each subject and use of learning materials/teaching aids (at least twolessons following constructivist approaches/perspectives)	<b>8X 5 = 40</b>
Undertaking a case study and student profile	<b>10</b>
Analysis of text materials and etc.	<b>7</b>
Developing question papers and resource materials	<b>4 X 7 = 28</b>
Scout and Guide	<b>5</b>
<b>Total</b>	<b>150</b>

- The videography of at least one lesson of each subject either in simulated teaching condition or actual class room conditions will be prepared and be shown for reflection in group for discussion and remediation.
  - School based internship for three weeks (rotation wise in different school context-Govt., Private, rural-urban, residential etc.
  - Activities may be confined to 5-6 areas like school process observation, case study, observation of peer teaching, observation of class of experienced teachers, substitute teaching, exemplar teaching etc—
  - One day feedback/lesson learnt sessions will be organized.
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## ICT FOR EDUCATION

<b>Maximum Marks</b>	<b>25</b>
<b>Internal</b>	<b>25</b>
<b>Contact Periods/week</b>	<b>2</b>

### **RATIONALE AND AIM**

Rapid advancements in Information and Communication Technologies (ICTs) has created many changes in our social, cultural, political and economic aspects of our lives. Since they impact the basic human processes of information sharing and communicating, these changes are creating new demands and priorities for teaching-learning in the emerging information society.

In order to exploit effectively the opportunities of ICTs, new methodological and pedagogical approaches need to be understood, created and used by the teachers. The role of a teacher is changing - s/he needs to be exposed to self-learning, peer-learning methods, acquire capabilities that enable response to new and unknown developments. Also new teaching-learning methods and pedagogies are bound to be more and more interlinked with technology.

The curriculum needs to encourage and enable teachers as well as learners to understand the principles and processes of the emerging information society, explore various digital methods that impact teaching-learning processes and systems and acquire basic capabilities, on both ICT literacy as well as integrating these into their own teaching-learning.

### **OBJECTIVES**

The course facilitates student teachers in:

- Understanding the evolution and impact of ICTs on society and in the education system.
  - Develop knowledge about computer system and formulate plans for integration of computers into curriculum
  - access global information sources and enhance learning opportunities in the electronic environment across the curriculum
  - developing capabilities in learning and using computer and web to negotiate the digital or *network society*\*.
-

- develop an appreciation of the use of computers in solving a wide variety of problems in ICT.
- Understanding the advantages and dangers of the internet, the new 'virtual world'.
- Use ICTs in the teaching learning process.
- Access available resources, review resources created by peers, collaborate to create their own digital teaching-learning resources.
- develop an awareness of computer technology and its role in society
- encourage creativity and logical thinking.

## **UNITS OF STUDY**

### **UNIT 1: INTRODUCTION TO COMPUTER, ICT AND SOCIETY**

- **Computer:** Definition, History, Classification, Generations, Basic related terms and expansion
- **Hardware:** Devices/Components, Accessories
- **Software:** Memory, Languages, Operating System Software, Software Applications
- **Working with Computers:** Computer Terminology, Starting and Stopping the Computer, Using the Mouse
- Windows Explorer, MS Paint, Notepad, Calculator.
- **LOGO:** *Logo command:* Draw, Repeat, RT, LT, HT, ST, PENUP, PENDOWN, PE,PD; Logo and maths, Logo and Geometry, draw basic shapes such as triangle, square, rectangle, circle polygon etc, learn procedures, use of colors.
- **ICT:** Meaning of ICT, brief history and evolution of ICT
- Communication changes and its impact on society and the education system.
- Socio-cultural, Social Networks and economic implications of ICTs
- Ethics and Philosophy of ICTs, Public Software -FOSS (Free and Open Source Software)

#### **Practical:**

- How to connect a computer
  - Start and shut down the computer in a systematic way
  - Identification and using different input-output devices ,cords, cables, connectors and input-output devices like printers, scanners, external storage devices
  - Recognizing icons on the Desktop
  - Using Windows Explorer for managing files and folders
  - Using PAINT: draw and work with images, rotating pictures, black and white, invert colors, usage magnifier, Foreground and Background colors
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- Using NOTEPAD: New, Open, Close, Save, Save as, Font – size, Style, type, Familiarity with all the keys on keyboard.
- Using Calculator
- Using LOGO commands
- Typing in multiple Languages: English, Hindi and other Indian languages. Mind
- Mind Mapping/Concept Mapping

## UNIT 2:MS WORD (Theory & Practical)

- **MS Word Basics:** Introduction, What's New in Word 2007, Word 2007 Program Screen, Ribbon, Quick Access Toolbar, Keyboard Commands, Menus , Shortcuts , Document types
- **Working with Documents:** Opening Files, Saving Files, Editing text, Clipboard
- **Formatting Documents:** Font, Paragraph, Alignment, Page Setup, Page Style, Drop Cap, Document Styles, Header and Footer
- **Tables:** Create, Table settings , Borders , Alignments , Insertion, Deletion, Merge, Split, Sort
- **Drawing:** Inserting Pictures/Files etc., Drawing Pictures , Formatting &Editing pictures ,Grouping, Ordering , Rotating
- **Tools :** Spell Checks, Macros, Mail merge, Templates, Using Wizards , Tracking Changes , Security, Hyperlink, Find and Replace, Word Count
- **Printing Documents**

## UNIT 3: MS POWERPOINT (Theory & Practical)

- **MS Power Pint:** Introduction, What's New in PowerPoint 2007, PowerPoint 2007 Program Screen, Ribbon, Quick Access Toolbar, Keyboard Commands
  - **Presentation Basic:** Creating, Saving, Closing, Opening, Previewing and Printing a Presentation; Inserting and Deleting a Slide, Page Setup, columnar documents
  - **Working with Presentation:** Inserting, Editing, Formatting, Finding and Replacing Text; Using the Office Clipboard; Inserting Symbols, Special Characters, Word Art, etc; Format Painter, Hyperlink, Custom Show
  - **Slide:** Changing and working with different Views of a Presentation, inserting new slide, Layout, Themes, Background, Rearranging Slides, Headers and Footers, Slide Master
  - **Working with Graphics and Media:** Slide Animation, Transitions, Sound and Video
  - **Final Preparation and Deliver a Presentation**
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*\*The term 'network society' popularised by eminent sociologist Manuel Castells is perhaps more useful a term in describing the impact of ICTs on society, though the terms information society or digital society are also used*

## **MODE OF TRANSACTION**

Practice: Computer Lab

- Extending practical experience to the application of computers
- Conducting Theory Classes: Classroom Discussions, Reviews, Preparation, Use of Audio Visual Media, Lecture, Demonstration and other suitable methods.
- Integrating ICT in other subjects through Computer Aided Learning
- Adopting Individual Center Approach

## **Marks Distribution**

Theory=10 Practical =15 (Record =2.5, Viva=2.5, Practical Exam=10)

## **SUGGESTED READINGS**

1. The Language of ICT: Information and Communication Technology, By Tim Shortis
  2. Risk, Complexity and ICT, edited by Ole Hanseth, Claudio Ciborra
  3. Communication Technology, By Everett M. Rogers
  4. Getting the News: How Technology is Revolutionizing the Media, Brendan I Koerner- 2001-46pages
  5. Communication Technology Update and Fundamentals, August E. Grant, Jennifer Harman Meadows Taylor & Francis, 2008 - Technology & Engineering -360 pages
  6. Absolute Beginner's Guide to Windows XP Media Center, Steven D. Kovsky, Que Publishing, 2004 - Computers - 379 pages
  7. Absolute Beginner's Guide to Upgrading and Fixing Your PC, Michael Miller, Que Publishing, 2003 - Computers - 385 pages
  8. Absolute Beginner's Guide to Microsoft Windows Vista, Shelley O'Hara, Ron Mansfield, Que Publishing, 2007 - Computers - 383 pages
  9. Computers Simplified, Ruth Maran, Paul Whitehead, John Wiley & Sons, 12-Oct-2000 - Computers - 240 pages
  10. Computers for beginners, Margaret Stephens, EDC Pub., 1995 - Juvenile Nonfiction - 48 pages
  11. Computer Manual, Dell Keegan-Martin, Haynes Publishing PLC, 01-Oct-2000 - Microcomputers- 144 pages
  12. Computer Basics, Bill Cowan, Teacher Created Resources, 01-Feb-1996 - Education- 48 pages
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13. Digital Information Management: An Essential Guide to Multimedia, Stephen J. Ethier, Christine A. Ethier, Pearson/Prentice Hall, 2007 - Business & Economics -170 pages
  14. Haynes Build Your Own Computer, Kyle MacRae, Gary Marshall, Haynes Publishing PLC, 2007 - Microcomputers - 168 pages,
  15. How Computers Work, Ron White, Timothy Edward Downs, Que,2002-Computers-405 pages
  16. Office 2007, in easy steps,2010, Mc Graw Hills publication, 240 pages
  17. Office 2013, in easy steps, Mc Graw Hills publication, 240 pages
  18. SharePoint 2010 Administration and Development (Jean Paul)
  19. Microsoft Windows 8: Step by Step, Ciprian Adrian Rusen, Joli Ballew, Microsoft Press, 2012 - COMPUTERS - 741 pages
  20. Reader's Digest Beginner's Guide to Home Computing, Reader's Digest,Reader's Digest Association, 1998 - Computers - 192 pages
  21. The Personal Computer: Operating, Troubleshooting, and Upgrading, Mike Mutasem Awwad, Prentice Hall PTR, 01-Jun-2000 - Computers - 202 pages
  22. Understanding personal computer hardware: everything you need to know to be an informed PC user, PC buyer, PC upgrader, Steven Roman, Springer, 1998 - Computers - 440 pages
  23. Using Your Computer: The Beginner's Guide, Kyle MacRae, Haynes Publishing Group, 2006 - Computer software -178 pages
  24. Logo Design Workbook: A Hands-On Guide to Creating Logos
  25. Los Logos Hardcover – October 1, 2002by Mika Mischler (Editor), Nicholas Bourquin (Editor)
  26. Logo Paperback by Michael Evamy
  27. LOGO Design (Midi Series) (Multilingual)Paperback by Julius Widemann (Author)
  28. E-world 1-8 , by Anshu Kumar, Shweta Malik, Kumar Anshu
  29. E-world ICSE 6-8 by Anshu Kumar, Shweta Malik, Kumar Anshu
  30. Linux for newbies - become an Open-Source Computer hero, Marek Mularczyk, Sai Training Ltd, 2012 - Linux device drivers (Computer programs) - 210 pages
  31. Microsoft Windows 8: Step by Step, Ciprian Adrian Rusen, Joli Ballew, Microsoft Press, 2012 - COMPUTERS - 741 pages
  32. My Windows 8, Katherine Murray, Que Publishing, 11-Sep-2012 - Computers - 350 pages
  33. Reader's Digest Beginner's Guide to Home Computing, Reader's Digest,Reader's Digest Association, 1998 - Computers - 192 pages
  34. The Essential Guide to Computing, E. Garrison Walters, Prentice Hall Professional, 2001 - Computers - 499 pages
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35. Technology in action, Alan Evans, Kendall Martin, Mary Anne Poatsy, Pearson/Prentice Hall, 01-Jan-2006 - Business & Economics - 649 pages
36. The Personal Computer: Operating, Troubleshooting, and Upgrading, Mike Mutasem Awwad, Prentice Hall PTR, 01-Jun-2000 - Computers - 202 pages
37. The Ultimate Multimedia Handbook, Jessica Keyes, McGraw-Hill Osborne Media, 01-Jan-1997 - Computers- 1024 pages
38. Teach yourself networking visually, MaranGraphics Inc, Ruth Maran, IDG Books Worldwide, 1997 - Computers - 305 pages
39. Teach yourself computers & the Internet visually, MaranGraphics Inc, Ruth Maran, IDG Books from MaranGraphics, 01-Sep-1996 -Computers - 287 pages
40. Using Your Computer: The Beginner's Guide, Kyle MacRae, Haynes Publishing Group, 2006 - Computer software -178 pages
41. Windows XP home networking, Paul Thurrott, Wiley, 17-Jul-2002 - Computers - 388 pages
42. Windows XP: The Survival Manual, Kyle MacRae, Haynes Publishing Group, 2003 - Microsoft Windows. (Computer file) - 164 pages
43. Windows 7 Tips and Techniques in Easy Steps: Secrets Revealed, Stuart Yarnold, In Easy Steps, 2010 - Computers - 216 pages
44. Windows 7: Step by Step, Joan Preppernau, Joyce Cox, Joan Lambert Microsoft Press, 01-Sep-2009
45. Windows 7 for Dummies Quick Reference by Greg Harvey
46. Introduction To Computers And Communication, D. Ravichandran, Tata McGraw-Hill Education, 01-Jul-2001 - 584 pages
47. Fundamentals of Computers, J.B. dixit, Laxmi Publications, Ltd., 01-Jan-2010 - 255 pages
48. Introduction To Computers, Rajmohan Joshi, Gyan Publishing House, 01-Apr-2006 - 295 pages
49. Introduction to Computers, 8th Edition By Gary B. Shelly, Steven M. Freund, Misty E Vermaat
50. Learning computer literacy: generic, for PC and Mac, Paul Wray, DDC Publishing, 01-Sep-2000 - Computers - 453 pages

**Suggested list of CDs/DVDs, Films, Websites**

<http://www.unescobkk.org/education/ict/ict-in-education-projects/training-ofteachers/training-modules/>

<http://www.public-software.in>

<http://karnatakaeducation.org.in>

<http://www.wikipedia.org>

<http://www.kn.wikipedia.org>

<http://www.khanacademy.org>

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<http://office.microsoft.com/en-in/support/office-2013-quick-start-guidesHA103673669.aspx>

***Note:** All teacher-educators will be required to develop skills for this paper as per the syllabus. All Teacher-educators and student-teachers are required to create email ids.*

**Expertise specialization:** *Master's Degree in Computer Application or Equivalent with understanding at the primary / upper primary level.*

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**EDUCATION, SOCIETY, CURRICULUM AND LEARNERS**

<b>Maximum Marks</b>	<b>100</b>
<b>Internal</b>	<b>30</b>
<b>External</b>	<b>70</b>
<b>Contact Periods/week</b>	<b>4</b>

**RATIONALE AND AIM**

As future teachers and educators, students (i.e. student teachers) need to have a solid foundation in the core principles and core concepts of education. This paper introduces the philosophical, the sociological, and the historical perspectives on education with a view to initiate inquiries and discussions on significant facets, themes and questions regarding education in India. The present century demands the need to understand the interface between education and society to deal with the issues of prevalent societal inequality and conflict, and address the demands for equality, justice, freedom, dignity and diversity. The philosophical, sociological and historical understanding of education's aims, processes and practices fulfils this need by critically elucidating the linkage that exists between education, knowledge and power.

**SPECIFIC OBJECTIVES**

- to understand and explore the meaning, aims, purposes of education
- to develop understanding of philosophical, sociological and historical dimensions of education
- to identify and question one's own long-established presumptions on knowledge, learner, teacher, and education, and develop a more informed, meaningful understanding of them
- to expose students to divergent educational thoughts, perspectives and practices, which will help them in creating secure, egalitarian and pedagogically sound learning situations

**MODE OF TRANSACTION**

- Critical thought and questioning should be the basis for the transaction as well as should be further honed
  - Teachers must engage in dialogue and discussion with students minimizing the traditional lecture mode.
  - Teachers should incorporate seminars, discussions, movie appraisals, group-work, field works, projects and the close reading of articles, policies, documents
-



- The connections between all the four units must be sought
- The units are to be studied by keeping the socio-historical-political context in mind

## **UNITS OF STUDY**

### **UNIT 1: PHILOSOPHICAL UNDERSTANDING OF EDUCATION**

- Exploring, and inquiring into the nature and need of education in human societies
- Relationship between schooling and education, and exploring various educative processes in human societies
- Schooling and Education as visualized by different western and Indian thinkers: Rousseau, Dewey, Montessori, Gandhi, Tagore, Krishnamurthi - Idealism, naturalism and pragmatism
- Understanding the basic assumptions about human nature, society, aims of education

### **UNIT 2: EDUCATION AND POLITICAL SYSTEM**

- Prominent characteristics of education in India during colonial rule
- India's Contemporary Education: continuities with and shifts from colonial legacy
- Political nature of Education, education in democracy
- Decentralization and Panchayati Raj (specifically through 73<sup>rd</sup> and 74<sup>th</sup> amendment)

### **UNIT 3: GENDER, EDUCATION AND SOCIETY**

- Role of education in reproducing dominance and challenging marginalization with reference to class, caste, gender and religion
- Reproducing gender in school-curriculum, text book, classroom processes and student-teacher interactions
- Teacher and society
- A critical appraisal of teacher's status
- Characteristics of Emerging Indian Society

### **UNIT 4: LEARNING, LEARNER AND TEACHING**

- Learning: concept and nature
  - Learning, knowledge and skills: different ways of learning
  - Meaning of teaching and its relationship with learning and learner
  - Socialization and learning: understanding influences and factors that shape learner's identity.
-

- Learners in Context: Situating learner in the socio political and cultural context
- Constructs of childhood: critical examination of the universal construct of childhood

## **UNIT 5: KNOWLEDGE AND CURRICULUM**

- Child's construction of knowledge: attaining knowledge through activity and experience
- 'Body of knowledge' and children's construction of knowledge
- Concepts of Belief, Information, Knowledge and Understanding
- Bodies of knowledge: different kinds of knowledge and their validation processes
- Processes and criteria for curriculum selection and construction
- Knowledge and power: representation, inclusion and exclusion of knowledge of different social groups in curriculum and textbooks

### **ESSENTIAL READINGS**

1. Badheka, Guji. (2001). *Baal Shikshan aur Shikshak*. Bikaner: Vaagdevi Prakashan.
2. Chanana, Karuna. (2008). Bharat main Prathamik Shiksha main Langik Asamnata: Manavadhikar Paripekshya in Sureshchandra Shukla and Krishna Kumar(Eds.) *Shiksha ka Samajshastriye Sandarbh*. Delhi: Granthshilpi (also available in English S. Shukla and Krishna. Kumar(Eds.) *Sociological Perspectives in Education: A Reader*. Delhi: Chanakya Publications, 1985.)
3. Dewey, John. (1952). *The School and the Child*, New York: The Macmillan Company, (Also available in Hindi *School aur Bachche* Translation: RRCEE)
4. Kumar, Krishna. (1988). *What is Worth Teaching*. New Delhi: Orient Longman. (Also Available in Hindi *Shaekshik Gyan aur Varchasav*. New Delhi: Granthshilpi.)
5. Palmer, Joy A. et. al (2001). Jean –Jacques Rousseau, John Dewey, Rabindranath Tagore, M.K. Gandhi, Maria Montessori *Fifty Major Thinkers on Education From Confucious to Dewey*, USA: Routledge.

### **CDs/DVDs for Discussion**

1. CIET/NCERT CD ROM *Four Educational Riddles* by Krishna Kumar
  2. Debrata Roy DVD *The Poet & The Mahatma*
  3. Krishnamurthy Foundation India DVD *The Brain is Always Recording*
  4. NCERT CD ROM a. *Battle For School* by Shanta Sinha      b. *Globalisation and Education*
  5. Sri Aurobindo Ashram Trust DVD *India and Her Future*
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## **READINGS FOR DISCUSSION**

1. Badheka, Giju (1999). *Montessori Paddhati*. Chapter 5: Montessori Shala ka Vatavaran. Bikaner: Vaagdevi Prakashan.
2. Dewey, John. (2009). *School aur Samaj*. Delhi: Aakar. Chapter 2: School aur Bachche ka Jeevan (Also available in English Dewey (2007, 1899) *The School and Society* Cosimo: New York).
3. Krishnamurti, J. (2006). *Krishnamurti on Education*. Part I: Talks to Students: Chapter 1: On Education, Chapter 4: On Freedom and Order, Part II: Discussion with Teachers: Chapter 1: On Right Education. Chennai: Krishnamurti Foundation of India.
4. Rousseau, Jacques J. (1979). *Emile or on Education*, translated by Allan Bloom Basic. 7-18.
5. Sykes, M. (1988). *The Story of Nai Taleem*, Nai Taleem Samiti, Sevagram: Vardha., (in Hindi *Nai taleem Ki Kahani* Translation: RRCEE)
6. Thakur, R. (2004). *Ravindranath ka Shikshadarshan*. New Delhi: Granthshipli.

## **ADVANCED READINGS**

1. Acharya, P. (1996). 'Indigenous Education and Brahminical Hegemony in Bengal', and Shahidullah, Kazi 'The Purpose and Impact of Government Policy on Pathshala: Gurumohashays in Nineteenth Century Bengal'. In Nigel Crook (ed.) *The Transmission of Knowledge in South Asia: Essays on Education, Religion, History and Politics*. New Delhi: Oxford University Press, 98-118.
  2. Kumar, K., Oosterheld, J. and Amin, N. (2007). 'Introduction'; 'Education and Culture: India's Quest for a Secular Policy'. In Krishna Kumar and Joachim Oosterheld (Eds.) *Education and Social Change in South Asia*. New Delhi: Orient Longman.
  3. Nambissan, Geetha. B. (2000). 'Identity, Exclusion and the Education of Tribal Communities'. In Rekha Wazir (Ed.) *The Gender Gap in Basic Education: NGOs as Change Agents*. New Delhi: Sage
  4. Nambissan, Geetha. B. (2003). 'Social Exclusion, Children's Work and Education: A View from the Margins'. In Naila Kabeer, Geetha B. Nambissan and Ramya Subrahmanian (eds.) *Child Labour and the Right to Education in South Asia*, 109-142. New Delhi: Sage.
  5. Nath, N. (2007). 'Stories of Struggle for Survival: Slum Children's Lives and Voices'. In Deepak Kumar Behera (Ed.) *Childhoods in South Asia*. New Delhi: Pearson.
  6. Saxena, Sadhana (2007). 'Education of the Masses in India: A Critical Enquiry'. In Krishna Kumar and Joachim Oosterheld (Eds.) *Education and Social Change in South Asia*. New Delhi: Orient Longman.
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7. Venkateswar, S. (2007). 'Robbed of Childhood: Child Labour and Domestic Service in South Asia'. In Deepak Kumar Behera (Ed.) *Childhoods in South Asia*. New Delhi:

**Expertise/ Specialization:** *Master's degree in Sociology/Political Science/History/Geography and Education.*

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**LEARNER AND LEARNING PROCESS**

<b>Maximum Marks</b>	<b>100</b>
<b>External</b>	<b>70</b>
<b>Internal</b>	<b>30</b>
<b>Contact Periods/week</b>	<b>4</b>

**RATIONALE AND AIM**

The course is aimed towards helping student-teachers understand various theories about learning and cognition. This would lead student-teachers to construct an understanding of learning for their own selves which they would be able to use in the classroom. This, it is hoped would help the teacher become more of a supporter and facilitator rather than an instructor.

Another pertinent aim is to enable the students to develop an understanding of there search methods employed to understand children in their multiple contexts. It is envisaged that the students would use some of these methods not only to hone their skills in the same but also in learning about reflection and analysis on the data gathered through these means. This implies strengthening linkages between theory and practice through various field-based assignments.

**GENERAL OBJECTIVES:**

- This would lead student-teachers to construct an understanding of learning for their own selves which they would be able to use in the classroom.
- The teacher become more of a supporter and facilitator rather than an instructor.
- The students can develop an understanding of the research methods employed to understand children in their multiple contexts.
- The pupil-teacher can strengthen the linkages between theory and practice through various assignments.

**SPECIFIC OBJECTIVES**

- To understand the process of thinking and learning in children through different theories and critical perspectives: principles of behaviourism, cognitive development, information processing, constructivist, socio-constructivist and cross-cultural positions. To reflect on their relevance in the teaching-learning process.
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- To understand that the essence of child-centred pedagogy is to be in tandem with the physical, socio-cultural, emotional and cognitive worlds of children within the Indian context.
- To allow for opportunities such that the student teacher is able to visualize the linkages with theory in the real life interactions with children, through activities for all round development.

## **UNITS OF STUDY**

### **UNIT 1: LEARNING AND COGNITION**

- Learning Theories: Basic Ideas of Behaviourist and Environmentalist Field Cognition, Learning Curves and its Critiques.
- Self instructional Techniques
- Constructivism: Introduction to the Concept; Piaget's Theory: what is Learning, Structures and Processes of Cognitive Development, Cognitive Conflict Characteristics of Thought in Different Stages; Children's Thinking; Implications for Teaching-Learning.
- Vygotsky's Theory- Introduction, the General Genetic Law, Concept of Zone of Proximal Development, Tools and Symbols in Development, Implications for Teaching.

### **UNIT 2: CREATIVITY AND PSYCHOLOGY OF THINKING, REASONING AND PROBLEM SOLVING**

- Creativity- Concepts and Process of Creativity, Theories of Creativity, Nurturing and Stimulation of Creativity.
- Thinking- Definition, Nature of Thinking, Theories of Thinking, Elements of Thought, Types of Thinking and Training or Development of Thinking.
- Reasoning –Meaning, Definition and Types of Reasoning.
- Problem Solving –Meaning, Definition, Steps involved for Effective Problem Solving and Useful Strategies for Effective Problem Solving.

### **UNIT 3: LANGUAGE AND COMMUNICATION**

- How do Children Communicate?
  - Perspectives in Language Development (with references to how children acquire language at early age): Skinner; Social Learning Theory of Bandura and Walters; Nativist- Chomskian Perspective.
  - Comparison of these Theoretical Approaches to Arrive at a Critique of Behaviourism
  - The uses of Language: Turn Taking, Interactions, Conversations, Listening.
-

- Socio- Cultural Variations in Language: Accents, Differences in Communication, Linguistic Variation, Implications for a Multicultural Classroom.
- Bilingual or Multilingual Children: Implications for Teachers- Multilingual Classrooms; Story Telling as a Pedagogic Tool.

#### **UNIT 4: LEARNING AND MORAL DEVELOPMENT**

- Transfer of Learning-Meaning, Types of Transfer and Theories of Transfer of Learning.
- Memory –Meaning and Process of Memory, Types of Memory and Methods of Memory.
- Forgetting-Meaning, Types and Theories of Forgetting.
- Information Processing Approaches: Basic Architecture of the mind (working Memory, Long Term Memory, Attention, Encoding and Retrieval), Knowledge organization and Learning as change in Declarative Memory; Schema Change or Conceptual Change; how these Develop in a Continuous Fashion.
- A Sense of Self: Self-Description, Self-Recognition, Self-Concept; Self-Esteem; Social Comparison; Internalization and Self-Control.
- Moral Development: Perspective of Kohlberg and Carol Gilligan's Critique; Cultural Variations in Moral Reasoning

#### **UNIT 5: EXCEPTIONAL CHILDREN AND LEARNING DISABLED**

- Exceptional Children- Definition, Gifted Children, Mentally Retarded, Backward Children, Juvenile Delinquency
- Learning Disabled-Meaning, Definitions, Nature and Characteristics of Learning Disabled.
- Learning Disability-Causes, Identification and Educational Provisions
- Specific Learning Deficiencies- Handwriting, Spelling, Reading Skills, Social Skills, Attention Skills, Thinking and Reasoning Abilities
- Techniques for helping Learning Disabled Children
- Inclusive Education.

#### **PRACTICUM:**

The practicum's may be conducted as per the need and socio cultural backgrounds.

#### **MODE OF TRANSACTION**

- Classroom discussions for developing conceptual understanding.
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- Close reading of text material/papers
- Individual and group presentations of issues and concerns raised in assignments
- Theoretical and practical activities/exercises/investigations; analysis and interpretation of collated observations, systematic data.

### **ESSENTIAL READINGS**

1. Papalia, D. E. et. al. (2008) *Human Development*. McGraw Hill Higher Education: New York.
2. Crain, W. (1992) *Theories of Development: Concepts and Applications*. (3<sup>rd</sup> Edition). Prentice Hall: New Jersey.
3. Snowman, B. R. and J. Snowman (1996) *Psychology Applied to Teaching*. Houghton Mifflin: Boston. 8th edition.
4. Vygotsky, L. S. (1997) Interaction between Learning and Development in Gauvian, M. and M. Cole. (ed.) *Readings on the Development of Children*. W. H. Freeman: New York.
5. Piaget J. (1997) Development and Learning. In Gauvian, M. and M. Cole. (ed.) *Readings on the Development of Children*. W. H. Freeman: New York.
6. Harris, M. and Butterworth, G. (2002). *Developmental Psychology: a student's handbook*. Taylor & Francis: New York.
7. Lefrancois, G. (1991) *Psychology for Teaching*. Wadsworth Publishing Co: California.
8. Mukunda, Kamala, V. (2009) *What Did You Ask at School Today? A Handbook on Child Learning*. Harper Collins: Noida.

**Expertise/ Specialization:** *Master's in Psychology/Child Development.*

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**CONTEMPORARY ISSUES IN ELEMENTARY EDUCATION**

<b>Maximum Marks</b>	<b>100</b>
<b>Internal</b>	<b>30</b>
<b>External</b>	<b>70</b>
<b>Contact Periods/week</b>	<b>4</b>

**RATIONALE AND AIM**

This course involves an understanding of the events and issues that have influenced and continue to shape the scenario of elementary education in India. A critical understanding of issues in contemporary elementary education becomes indispensable for a teacher, who needs to understand about foundations of elementary education, what are the initiatives to achieve UEE in India and specifically in Andaman and Nicobar Islands. This course, therefore, has been structured into themes and draws upon different issues in elementary education, sustainable development and the environmental concerns along with teacher leadership and professional development. The course should enable students and teachers to think critically and to be able to situate their personal and general assumptions within a broader sociological framework.

**SPECIFIC OBJECTIVES**

- To develop an overview of the universalization of education at the national and state/UT levels and contribution of different educationists towards improvement of elementary education.
- To appreciate the role of various initiatives such as, operation Blackboard scheme, DPEP, SSA, RTE, etc., for universalization of elementary education
- To develop an understanding on the management of elementary education at national, UT, district and sub-district level.
- To be acquainted with issues and concerns of elementary education in emerging society
- To appreciate the need of professional development and professional ethics for teachers.

**MODE OF TRANSACTION**

1. Teachers should incorporate discussions, projects, documentaries, movies and fields based projects
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2. Close and critical reading, as well as analysis of various articles, policy documents, texts, documentaries, movies should be developed
3. In a group, student-teacher should conduct field based projects, and be able to analytically document their findings
4. Dialogue and discussions has to be the key for the transaction of this course

## **UNITS OF STUDY**

### **UNIT 1: FOUNDATIONS OF ELEMENTARY EDUCATION**

- Meaning , Aims and Importance of Elementary Education
- Universalization of Elementary Education – Need and Dimensions
- Contributions of Educational Thinkers – Mahatma Gandhi, Sri Aurobindo, Tagore, Montessori, Froebel, Piaget, Vygotsky with reference to Elementary Education
- Major Policies and Provisions for achievement of UEE (Constitutional Directives, Education Commissions, NPE-1986 and POA 1986,1992)

### **UNIT 2:INITIATIVES TO ACHIEVE UEE IN ANDAMAN AND NICOBAR ISLANDS**

- Operation Blackboard ;District Primary Education Programme (DPEP) : Strategies and Impact
- Sarva Shiksha Abhiyan (SSA) : Features and Strategies; Mid-day Meal Programme
- RCFCE Act – 2009 : Salient Features, Provisions AND Implementation of the Act – Role of Teacher, School, Local Authorities, and Government
- Persons with Disability Act, 1995
- Present status of elementary education in Andaman and Nicobar Island

### **UNIT 3:MANAGEMENT / GOVERNANCE ISSUES IN ELEMENTARY EDUCATION**

- Structure and function at national (MHRD, NCTE, NCERT, NUEPA), SIE, district Administrative (Zilla Parishad, DEO/BEO, Academic (DIET / ) ,(BRC / CRC).
- Community participation in educational management
- Role and functions of the SMC, PTA and MTA
- Role and functions of Head Teachers/Principals in UEE

### **UNIT 4:EMERGING CONCERNS IN ELEMENTARY EDUACTION**

- Sustainable development and environmental concerns
  - Education of children with differently abled and inclusive education
  - Gender Issues in school curriculum
-

- life skill education
- Alternative schooling and open learning system

## UNIT 5: TEACHER LEADERSHIP AND PROFESSIONAL DEVELOPMENT

- Professional development – rights of the teachers, role and function of teacher associations
- Professional ethics; Development of leadership quality
- Teacher leadership and school effectiveness
- School mapping, institutional plan

### **ESSENTIAL READINGS**

- 1 Elementary Education: A Reference Handbook (Contemporary Education Issues) Deborah Harmon (Author), Toni Stokes Jones (Author)
- 2 Contemporary Education Dialogue, Editors: Sarada Balagopalan, Poonam Batra, Amman Madan, Padma M Sarangapani
- 3 Economy and Society, Evolution of Capitalism, by R R Suresh
- 4 Indian Strategies to Achieve Universalisation of Elementary Education, K. Gopalan
- 5 Universalisation of Elementary Education in India: The Policy Perspective , Rakshinder Kaur
- 6 Public Provisioning for Elementary Education in India, Praveen K Jha, Subrat Das, Siba Sankar Mohanty, Nandan Kumar Jha
- 7 Developing Teacher Leaders: How Teacher Leadership Enhances School Success by Francis A. (Allan) Crowther, Margaret Ferguson, Leonne Hann
- 8 Teacher Leadership That Strengthens Professional Practice by Charlotte Danielson
- 9 School management manual for rectors of state secondary schools policies, procedures & guidelines on school management issues school management division ministry of education, culture and human resources © august 2009
- 10 School factors related to quality and equity results from pisa 2000 oecd organisation for economic co-operation and development
- 11 Preparing Teachers and Developing School Leaders for the 21st Century LESSONS FROM AROUND THE WORLD Edited by Andreas Schleicher

**Expertise/ Specialization:** *Masters degree in Sociology/ Political Science/ History and Education*

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**EDUCATION FOR HOLISTIC DEVELOPMENT II**

<b>Maximum Marks</b>	<b>50</b>
<b>Internal</b>	<b>10</b>
<b>External</b>	<b>40</b>
<b>Contact Periods/week</b>	<b>3</b>

**RATIONALE AND AIM**

Work experience is a space where working transcends vocational skills and aims to create a whole experience of being fully present and working with all of one's faculties and being in relationship with others and nature. Within the teacher education programme, this course can help bring in a strong sense of work ethics.

Education for peace aims at promoting a culture of peace and value as the overarching goal of all education. It is expected to nurture values and attitudes among learners that would enable them to live in harmony with oneself, with others and with nature. Education for peace has the potential to humanize the entire enterprise of education.

**SPECIFIC OBJECTIVES**

- To understand the broad conception of work and work ethics.
- To enable the prospective teachers to understand the necessity of work-centered education.
- To explore the meaning of ethics and values individually and collectively.
- To understand conflicts and social disharmony and ways of dealing with them constructively.
- To understand the importance of being a sensible, sensitive and humane teacher.
- To develop the competencies of the prospective teachers to act as an agent of peace and enable learners to appreciate peace in their lives.

**UNITS OF STUDY****UNIT 1: HEALTH, WELLBEING AND NUTRITION EDUCATION****15**

- Concept of Health and Hygiene; Personal and Environmental Hygiene; Family and School Health; Physical and Mental Health of the child
- Methods and Techniques of health promotion – School health services, Good health habits, Personal cleanliness and Healthy school environment.
- Food and Nutrition–Balanced diet, Malnutrition and its effects, Communicable Diseases and their Prevention, HIV/ AIDS and Drug abuses.
- Assessment of Health and Nutrition Education in elementary schools

## **UNIT 2: PHYSICAL EDUCATION AND FIRST-AID**

**15**

- Concept of Physical Education
- Awareness of our Body – Body movements (types of body movements), Body postures – Postural deformities and its remedial measures.
- Physical fitness and Motor fitness – Exercise and drills, Yoga, Pranayam and Asanas; Common Athletics and Games,
- Safety Measures – Common safety rules at school, home, playground, road; First-aid services in schools
- Assessment of Physical education and first-aid activities in elementary schools.

## **UNIT 3: EDUCATION FOR PEACE**

**10**

- Peace Education – Concept and need
- Objectives of peace education in elementary schools – intercultural understanding, civic responsibility, ethical development and development of social values.
- National Integration and International Understanding for Peace.
- Strategies for management of Peace Education
- Activities for Peace Education in elementary schools
- Assessment of peace education in elementary schools

## **TRANSACTION MODE**

- Hands - on activities
  - Discussions & Reflections
  - Readings & Reflections
  - Field trip-visit
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- Involvement of trainees
- Self imagination
- Discussion and presentation workshop

### **ESSENTIAL READINGS**

1. Sykes, M. (2009). The story of Nai Talim. New Delhi: NCERT.
2. Chunawala, S & Natarajan C (1990). Conflits – Curriculum Books 7,. Mumbai: HBCSE
3. Pant, D and Gulati, S. (2010). Ways to Peace – A Resource book for Teachers, New Delhi: NCERT
4. NCERT (2006), National Focus group Position Paper on Education for Peace, New Delhi: NCERT
5. Venugopal, K.; Shyamala, S. K. and Murthy, C.G.V.(2007). Education for Peace: A training package for school teachers, Mysore: Regional Institute of Education
6. Baru, R. V. (2008). School Health Services in India: An Overview. Chapter 6 in Rama V. Baru (ed.) *School Health Services in India: The Social and Economic Contexts*, New Delhi: Sage publication, 142-145.
7. CSDH, (2008), *Closing the gap in a generation*, Executive Summary of the Final Report of the Commission on Social Determinants of Health, WHO, WHO, Geneva, 0-9.
8. Deshpande, M., R.V. Baru and M. Nundy, (2009). *Understanding Children's Health Needs and Programme Responsiveness*, Working Paper, New Delhi: USRN-JNU
9. Midday Meals- A Primer, (2005). *Right to Food Campaign*, Delhi.
10. *Aao Kadam Uthaein: Ek Sahayak Pustika*, USRN-JNU, New Delhi. (A resource tool/book for schools to address issues of health infrastructure and programmes).
11. Ramachandran, V., Jandhyala, K. and Saihjee A. (2008). Through the Life Cycle of Children: Factors that Facilitate/Impede Successful Primary School Completion in Rama V. Baru (ed.) *School Health Services in India: The Social and Economic Contexts*, New Delhi: Sage

**Expertise specialization:** *Subject experts in the related area of teaching.*

Note: *The content of this paper (theory) may be merged with practical areas of the concerned para subjects.*

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**CONTENT-BASED PEDAGOGY IN ENGLISH-II**

<b>Maximum Marks</b>	<b>75</b>
<b>Internal</b>	<b>25</b>
<b>External</b>	<b>50</b>
<b>Contact Periods/week</b>	<b>4</b>

**RATIONALE AND AIM**

This course focuses on the teaching of English to learners at the elementary level. The aim is also to expose the student-teacher to contemporary practices in English Language Teaching (ELT). The course also offers the space to critique existing classroom methodology for ELT.

The theoretical perspective of this course is based on a constructivist approach to language learning. This course will enable the student-teacher to create a supportive environment which encourages their learners to experiment with language learning. The course will also focus on developing an understanding of second language learning.

**SPECIFIC OBJECTIVES**

- Equip student-teachers with a theoretical perspective on English as a Second Language (ESL)
  - Enable student-teachers to grasp general principles in language learning and teaching
  - To understand young learners and their learning context
  - To grasp the principles and practice of unit and lesson planning for effective teaching of English
  - To develop classroom management skills; procedures and techniques for teaching language
  - To examine and develop resources and materials for use with young learners for language teaching and testing.
  - To examine issues in language assessment and their impact on classroom teaching.
  - To understand the strategies used in a differentiated classroom with multiple levels
  - To be familiar with multiple assessment strategies for the language teacher
  - Designing various strategies for evaluating learner performance
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- Exploring the possibilities for integrating ICT and Art Education principles for facilitating English language.

### **MODE OF TRANSACTION**

- Use of Essential Readings as an introduction to units. The remaining readings can be given for self reading to students and also used for assignments. Advanced readings are optional and intended for teacher educators.
- Field units to focus on developing and trying out various resources, techniques, activities and games for learning English
- Text analysis of school text books for English – state-produced and by private publishers
- Analyzing and reviewing teaching-learning material
- Interaction session, group discussion, presentation, input sessions.

**Note:** Internal assessment will be based on written as well as project / assignment/ group discussion/ role play/ debate etc..

### **UNITS OF STUDY**

#### **UNIT 1: ISSUES OF TEACHING OF ENGLISH AT THE ELEMENTARY STAGE**

- Issues of learning English in a multi-lingual/multi-cultural society: the multi-lingual nature of India, English as the language of prestige and power
- Teaching English as a first language, second language and foreign language: developmental, socio-economic and psychological factors; the politics of teaching English in India; key factors affecting second language acquisition
- Perspectives on the appropriate age for beginning the teaching of English: teaching English to young learners.
- Challenges of teaching language in a diverse class room: language difficulties, errors and disorders.

#### **UNIT 2: APPROACHES TO THE TEACHING OF ENGLISH**

- Behaviouristic and Structural Approaches: grammar-translation method, audio-lingual method
  - The Cognitive and Constructivist Approach: nature and role of learners, different kinds of learners – young learners, beginners, teaching large classes etc, socio- psychological factors (attitude, aptitude, motivation, needs, level of aspiration)
  - Communicative language teaching: focusing on meaning, role of text books and other resources, role of a teacher and classroom management.
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- Teaching prose and poetry, lesson plan, modules, class room organization - beginning and ending lessons, asking questions, giving instruction.
- Pattern of class room interaction, correction techniques in the class room.

Units 3, 4 and 5 to be field-based. In these units the maximum time must be spent on discussing specific strategies for teaching English.

### UNIT 3: TEACHING STRATEGIES

- **The text book:** Critical literacy, personal response to poems and stories, adapting the textbook
  - **Beyond the textbook:** including children's literature in the classroom (poems, stories, songs and teaching pronunciation)
  - **Listening and Speaking Skills:** seeing talk as valuable, reducing teacher-talk time in the classroom, total physical response – simple instructions, story-telling etc., using pair-work and group-work meaningfully to encourage speaking and participation-children as researchers, some activities for the classroom: poems, songs, chants, story-telling, role-play, situational conversations etc., vocabulary development: using pictures, flow-charts, word walls; teaching pronunciation, rhythm, stress and intonation.
  - **Real life listening situations:** listening to various announcements, conversations, TV programme etc, designing listening activities.
  - Developing **micro and macro skills of listening:** listen and distinguish between stress and unstressed sounds, listen and understand the use of strong and weak forms in connected speech, mark the tone of the speaker.
  - **Discussion activities:** describing pictures, picture differences,
  - **Speaking practice activities:** welcoming guests, proposing vote of thanks, anchoring programme, conducting morning assemblies and interviews.
  - **Reading:** beginning reading:-the alphabet method, phonetic method, reading with meaning; stages of Reading:- pre-reading, while-reading and post-reading activities; comprehension skills:-guessing meaning from context, word-attack skills; types of reading:-Independent reading, setting up reading corners; guided reading and shared reading.
  - **Framing comprehension questions:** Multiple Choice, match the following, true/ false, fill in the blanks, one word substitution, complete the sentences, factual and open ended questions, characteristic of efficient reading and implications for teaching.
  - **Writing:** Developing the mechanics of writing-how to teach handwriting, spelling, punctuation, sentence formation; providing triggers for creative writing- brainstorming, discussions, reading; writing as a process-brain storming,
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drafting, conferencing, publishing/sharing; controlled, guided, and free writing; writing-letters, daily diary/journals, logs (responding to something read or observed), using pictures; using writing frames and guided writing strategies, text book based writing activities.

- **Teaching grammar and vocabulary:** Teaching grammar to strengthen language acquisition: teaching grammar as knowledge about language, making grammar meaningful and fun; inductive and deductive methods of teaching grammar, grammar games; common errors in speech and writing with follow-up activities.
  - ***Types and methods of teaching vocabulary in primary classes*** - active and passive vocabulary, vocabulary games and activities, spoken and written vocabulary, dictionary using idioms and phrases, synonym and antonyms.

#### UNIT 4: LEARNER ASSESSMENT

- What is assessment-evaluation/examination-concept and features of CCE; Report book/achievement record
  - **Assessing, speaking and listening**- listen and match, listen and write/do/complete/answer, listen and sequence, sentence completion , using interviews, storytelling, re-telling
  - Speak aloud, picture-cue etc
  - **Assessing reading comprehension** - odd one out, MCQ, gap filling, comprehension passage, sequencing, reading charts, maps etc.
  - **Assessing writing** - letters, words, spelling, picture description, dialogue, paragraph etc.
  - **Teacher's diary**-anecdotal records, assessing writing - informal feedback from teacher, measuring progress
  - Responding to content and form, using portfolios for subjective assessment, continuous and comprehensive assessment
  - Attitude towards errors and mistakes in second language learning
  - Review of current assessment procedures-cursive writing, dictation, cloze, questions and answers, utilization of feedback.
  - Formative assessment of learning
  - Self and peer assessment, preparing check list, observation schedule, using assessment rubrics based on CCE giving feedback, constructive port folio
  - Summative assessment
  - Oral test, written test, question paper design based on learning process
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- Remedial teaching based on assessment-transparency and objectivity in assessment, peer-assessment, reporting the progress- Formative & Summative Assessment

## UNIT 5: PLANNING AND MATERIAL DEVELOPMENT

- Integrating the teaching of English with other subjects
- Unit planning for a learner-centered classroom
- Preparation of low-cost teaching aids
- Using the classroom as a resource. Creating differentiated resources and tasks for different learning levels

## ESSENTIAL READINGS

1. Teachers' manual on CCE (9<sup>th</sup> and 10<sup>th</sup> 2009) by CBSE, New Delhi
  2. A source book on assessment for primary classes, NCERT
  3. Teachers' Handbook / Manual on CCE-Primary/Middle class (2010-11) by SIE, Directorate of Education, A & N Islands
  4. Brewster, E., et.al. (2004) *The Primary English Teacher's Guide*. Penguin: London (New Edition)
  5. Ellis, G. and J. Brewster (2002) *Tell it again! The new Story-telling Handbook for Teachers*. Penguin: UK.
  6. Krashen, S (1982) *Principles and Practices of Second Language Acquisition*. Pergamon Press: Oxford
  7. NCERT, (2005). *National Curriculum Framework, 2005*. NCERT: New Delhi.
  8. NCERT, (2006). *Position Paper National Focus Group on Teaching of English* NCERT: New Delhi.
  9. Slatterly, M. and J. Willis (2001) *English for Primary Teachers: A Handbook of Activities and Classroom Language*. Oxford University Press: Oxford.
  10. Tomlinson, Carol Ann (2001) *How to Differentiate Instruction in a Mixed Ability Classroom* ASCD: USA
  11. Approaches and methods in language reading (2<sup>nd</sup> Edition, J C Richard)
  12. Developing reading skills: a practical guide to reading comprehension exercise
  13. English for Primary Teachers: A Hand book of activities and class room language, Mary Slattery and Janewillis
  14. How to teach writing, *Jeremy Harmer*
  15. Teaching Writing Skills, *Don Byrne*
  16. Techniques in teaching writing, *Ann Raimes*
  17. Teachers' manual on CCE (9<sup>th</sup> and 10<sup>th</sup> 2009) by CBSE, New Delhi
  18. A source book on assessment for primary classes, NCERT
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19. Fogarty, R. (2006) *Literacy Matters: Strategies Every Teacher Can Use*. USA: Corwin Press: USA pp. 59-62.
20. Wyse, D.&R. Jones(2001) *Teaching English, Language and Literacy*. Routledge Falmer:New York. pp.169-175.
21. 1 Browne, A. (2007). *Teaching and Learning Communication, Language and Literacy*. Paul Chapman: London, UK, pp175-210.
22. Sahi, J. and R. Sahi, (2008). *Learning through Art*. Eklavya: Bhopal. pp 125-137

### **ADVANCED/ SUGGESTED READINGS**

1. A foundation course in Spoken English, *Kamalesh, Sadanand and Susila Kunitha*
2. A text book of English phonetics for Indian students, *T. Bala Subrahmanyam*
3. Academic Writing: A practical guide for students, *Stephen Bailay*
4. An interactive grammar of English, *S K Varma and Hema Latha Nagarajan*
5. Better English Pronunciation with CDs, JDO Connor and Arnole G F
6. Cambridge Advanced Learners Dictionary (With CD),
7. English Phonetics and Phonology: Self contained comprehensive pronunciation course (CD 1 & 2), P Roach
8. English Pronunciation Dictionary, *Denial Gones (Latest Edition)*
9. Longmans Dictionary of Contemporary English
10. Oxford Advanced Learners Dictionary (With CD)
11. Cameron, L. (2001) *Teaching Languages to Young Learners*, Cambridge University Press: Cambridge
12. Curtain, H. A. and, C. A.Dahlberg (2004). *Languages and Children: Making the Match*. Pearson: Boston.
13. Tomlinson, B. (ed.) (1998). *Materials Development in Language Teaching*. United Kingdom: Cambridge University Press: UK.

### **USEFUL JOURNALS AND MAGAZINES**

1. English Teaching professional, British Council Delhi
2. Journal for English language teaching, English language teacher association of India, Chennai.

**Expertise Specialization:** *Master's degree in English Literature with a knowledge of Linguistics.*

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**CONTENT-BASED PEDAGOGY IN MATHEMATICS II**

<b>Maximum Marks</b>	<b>75</b>
<b>Internal</b>	<b>25</b>
<b>External</b>	<b>50</b>
<b>Contact Periods/week</b>	<b>4</b>

**RATIONALE AND AIM**

At the primary level children learn how to use mathematical knowledge in a systematic way when they deal with the world around them. At the same time children come across symbolic aspects of mathematical knowledge and learn how to relate to concepts and procedures in mathematics. For further development of mathematical knowledge it is necessary that children become aware of key aspects of mathematics such as abstraction and generalization, mathematical ways of arguing, necessity for use of symbols. They need to learn mathematical ways of problem solving, relating to space, making sense of the information.

This course attempts to provide deeper insight, develop skills, and enhance sensitivity towards mathematical rigor by looking at fundamental domains of mathematics: Algebra, Geometry, and Data Handling.

**SPECIFIC OBJECTIVES**

- To develop insight into ways of reasoning mathematically.
  - To create awareness about and develop appreciation for algebraic thinking.
  - To develop understanding of geometrical concepts.
  - To develop facility in estimation of quantities (weights and sizes of small and large objects encountered in daily life; quantities encountered in mathematical computations)
  - To develop facility in data handling, reading of graphs and schematic diagrams (including road maps and railway maps); designing one's own schematic diagrams.
  - To familiarize student-teachers with statistical ways of dealing with information and some mathematical concepts that help in the process.
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## **UNITS OF STUDY**

### **UNIT 1: MATHEMATICAL REASONING and ALGEBRA THINKING**

- Number Patterns that help in appreciating the use of unknowns in expressing the generalization resulting from the pattern. Study of counting problems and number patterns that show concretely how hypotheses are formulated and tested. Application of algebraic identities.
- Structure of Mathematics: Axioms, Definitions, Theorems
- Validation process of mathematical statements: Proof; Counter-Example; Conjecture. Recognizing the invalidity of wrong arguments. Simple fallacies
- Problem solving in mathematics – Formation of equations, solution of equations
- Creative thinking in Mathematics (Mathematics Puzzles, Riddles and Mental Maths)
- Playing with commonly encountered sequences like square numbers, triangular numbers, powers of two, Fibonacci numbers; occurrences of some of these in counting problems and various other contexts.

### **UNIT 2: PRACTICAL ARITHMETIC AND HANDLING DATA**

- Collection, classification and interpretation of data
- Presentation of collected data
- Elementary statistical techniques, understanding concepts like mean, median and mode, upper and lower quartile, index numbers as used in the newspapers and mass media; also the use of simple graphs
- Time-tabling including railway time tables
- Percentage
- Ratio and proportion
- Interest and discount as applications of percentages and ratio/proportion

### **UNIT 3: GEOMETRIC WAYS OF LOOKING AT SPACE AND SHAPES**

- Geometric thinking levels – the levels according to Van Hiele
  - Simple two and three dimensional shapes – geometric vocabulary (Area and Volume)
  - Congruency and similarity
  - Transformations and geometric Shapes
  - Measurement and geometric shapes
  - Construction of the geometrical shapes using geometric equipment.
-

#### **UNIT 4: COMMUNICATING MATHEMATICS**

- Curriculum and Classroom Practices
- The role of text books in the teaching-learning process of mathematics
- Mathematics Laboratory/Resource Room
- Feed back to students about errors committed in their work (diagnostic testing and remedial teaching)
- Mathematics phobia and coping with failure

#### **UNIT 5: ISSUES ABOUT ASSESSMENT IN MATHEMATICS (CCE CONTINUOUS AND COMPREHENSIVE EVALUATION)**

- Open-ended questions and problems (using Brain Storming, Discussion Techniques)
- Assessment for conceptual understanding (Development of Achievement Test)
- Assessment for evaluation of skills such as communication and reasoning
- Awareness of the criticality of methods of assessment, of the strengths and weaknesses of the various instruments commonly used for assessment

#### **List of suggested activities for sessional work for internal assessment**

- Development of Achievement Test
- Prepare a Content based Assignment on any topic
- Prepare a Stencil of Geometrical Shape
- Compilation of Mathematical Puzzles.
- Identification of learning difficulties experienced by student in a lesson and evaluation of the remedial strategies adopted by teacher.
- Planning and implementation of remedial instructional strategies based on an analysis of students responses to questions in a achievement test.

#### **MODE OF TRANSACTION**

- Use of examples and non-examples while explaining mathematical ideas
  - Critical analysis of text-books from the view point of thinking
  - Emphasis on understanding mathematical vocabulary and its role in development of mathematical understanding
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## **ESSENTIAL READINGS**

1. Eves Howard (1983) *Great Moments in Mathematics (Volume 1)*, The Mathematics Association of America.
2. Gardener Martin (1969) *Mathematical Puzzles and Diversions* Penguin: New York.
3. Harold, Jacobs (1994) *Mathematics, A Human Endeavour*.
4. IGNOU (2007) *Learning Mathematics (LMT)* 1-6. School of Sciences, IGNOU:New Delhi
5. NCTM (2000) *Principles and Standards for School Mathematics*, National Council of Teachers Mathematics: USA
6. Pedoe, Dan (1973) *The Gentle Art of Mathematics* Dover Publications New York
7. Polva, George (1973) *How to Solve It*, Princeton University Press: Princeton, New Jersey.
8. Post, Thomas R., (1992) *Teaching Mathematics in Grades K-8: Research-Based Methods*. Allyn and Bacon: Washington D.C. Ch8 and Ch 15
9. Sawyer, W W (1991) *Mathematicians' Delight*, Penguin: USA
10. Sawyer, W W (2003) *Vision in Elementary Mathematics* Dover Publication: USA.
11. Shirali, S A. *A Primer in Number Sequences*, University's press.
12. Shirali, S A. *Adventures in Iteration (Volume 1)*
13. Shirali, S A. (1984) *First Steps in Number Theory* MIR Publishers, Moscow
14. Stewart, I. (1970) *Making Mathematics Live: A hand book for primary teachers*. Angus and Robertson: Australia.
15. Zevenbergen, R. et.al. (2004) *Teaching Mathematics in Primary Schools*. Allen & Unwin; (First South Asian Edition).

## **ADVANCED READINGS**

1. Moses, B. (Ed.) (1999). *Algebraic Thinking, Grades K-12*. USA: National Council of Teachers of Mathematics.

**Expertise/ Specialization:** *Master's degree in Mathematics and Education with an understanding of mathematics education at the primary and upper primary level.*

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**CONTENT-BASED PEDAGOGY IN EVS(SCIENCE)-II**

<b>Maximum Marks</b>	<b>75</b>
<b>Internal</b>	<b>25</b>
<b>External</b>	<b>50</b>
<b>Contact Periods/week</b>	<b>4</b>

**SPECIFIC OBJECTIVES**

- To help student-teachers understand the scope of EVS and examine different perspectives of curriculum organization.
- To encourage students to revisit their own conceptual understanding of science
- To engage students with various aspects of the nature of science.
- To facilitate student-teachers to probe children's ideas in science and environmental studies
- To help students select and use appropriate teaching-learning and assessment strategies.
- To enable students to view science as an inclusive and a democratic enterprise.

**UNITS OF STUDY****UNIT 1: CLASSROOM TRANSACTION STRATEGIES**

- Process Skills in EVS: understand how children engage with ideas, make linkages, classify, analyze, kind of questions they ask, express themselves.
- Heuristic method and its limitation
- Laboratory investigations
- Guiding principles of constructivism
- Lesson Planning – revised blooms taxonomy, planning from a constructivist perspective

**Practical / Project**

- Preparation of a Unit Plan
- Preparation of different types of Lesson Plan
- Critically analyze the EVS textbooks- Class III to V

**UNIT 2: PLANNING FOR TEACHING**

- Concept maps and thematic web charts.
  - Evolving a Unit Plan framework.
  - Resource pool of materials: TLM and local resources
  - Reflecting on classroom practices.
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### Practical / Project

- Discussion with resource person, environmentalist, teacher educators
- Preparing charts, maps
- Preparing posters, drawings, news paper clippings, use of display boards, watching educational channels, making CDs, Video coverage, photography, recording birds and animal calls.
- Visit to sites of environmental significant, water/sewage treatment plant.
- Creative expressions through puppetry show, songs, stories, comics, rhymes, slogans, writing articles for newspaper and magazines, creating stage plays etc.

### UNIT 3: ASSESSING LEARNING IN SCIENCE AND ENVIRONMENT STUDIES

- Analyzing school textbooks for age appropriateness, relevance, based on the above.
- Formative Assessment : introduction, class room environments that support formative assessment, formative assessment techniques
- Summative Assessment: planning for testing, different types of questions: Objective type, Short Answer type and Essay type.
- Continuous Comprehensive Evaluation: Scholastic and Co-Scholastic areas.

### Practical / Project

- Preparation of different types of questions
- Preparation of paper pencil test on any topic at primary level
- Prepare a CCE report card of a child.
- Preparing different types of achievement tests

### UNIT 4: NATURAL PHENOMENA AND RESOURCES

- Force, Motion and Gravitation
- Magnetism, Electricity and Light
- Work, Energy and Pressure
- Natural resources: Air, Water, Soil and their conservation, Pollution,
- Sources of energy

### UNIT 5: SCIENCE FOR ALL

- Issues of gender, language, culture and equity in science classes
- Introduction to science and society interface

### Practical / Project

- Issues such as availability of water, indigenous people and their knowledge base, loss of habitat and endangered species, energy conservation and climate change can be taken up for literature survey, discussions, campaigning through
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posters, public hearing, talks by concerned people like farmers and also experts in the field

### **ESSENTIAL READINGS**

1. Jaithirtha, Kabir (2003) Relating with the Earth: an exploration of the possibilities in teaching Geography. *Journal of the Krishnamurti Schools*.  
<http://www.journal.kfonline.org/article.asp?issue=7&article=6>.
2. NCERT, (2005) *Syllabus for Elementary Classes- Volume I*. NCERT: New Delhi.
3. Orr, D.W. (2007) Is Environmental Education an Oxymoron? *Journal of the Krishnamurti Schools*. <http://www.journal.kfonline.org/article.asp?issue=11&article=3>.
4. Phatak, K. (2009) Walks: to nurture the Natural. *Journal of the Krishnamurti Schools*.  
<http://www.journal.kfonline.org/article.asp?issue=13&article=3>.
5. Seminar Proceedings (1995-96) Seminar on EVS organized by Vidya Bhawan, Udaipur.
6. Sarabhai, V. K. et.al. (2007) *Tbilisi to Ahmadabad– The Journey of Environmental Education: A Source book*, Centre for Environment Education: Ahmedabad.
7. Driver, Rosalind, et. al. (2006) *Making Sense of Secondary Science: Research into Children's Ideas*. Routledge Falmer: London Introduction.
8. Guesene, E. and A. Tberghiem (1985) *Children's Ideas in Science*, Open University Press: Milton Keynes.
9. Piaget, Jean (1930). *The Child's Conception of Physical Causality*. Kegan Paul, Trench, Trubner & Co. Ltd: London
10. Harlen, W. and J. Elstgeest (1998). *UNESCO Source Book for Science in the Primary School*. NBT: New Delhi.
11. NCERT, (2008). *Source Book on Assessment for Classes I – V*, Environmental Studies. NCERT: New Delhi.
12. Pollard, Andrew (2002). *Reflective Teaching*. Continuum: London.

### **READINGS FOR DISCUSSION**

1. Agnihotri, Ramakant et. al. (1994) *Prashika*, Eklavya's Innovative Experiment in Primary Education. Eklavya: Bhopal.
  2. Mishra, Anupam (2004) *Aaj bhi Kharein hai Talaab*, Gandhi Peace Foundation: New Delhi. 5<sup>th</sup> Edition.
  3. Raina, V. and D. P. Singh (2001) What is Science? *Dispatch*, October-December.
  4. Driver, Rosalind (1981) Pupils' Alternative Frameworks in Science, *European Journal of Science Education* 3(1), 93-101.
  5. George, Alex M. (2007). *Children's Perception of Sarkar- A critique of Civics Text books*, Eklavya: Bhopal.
  6. NCERT, (2008) *Source Book on Assessment for Classes I–V*. NCERT: New Delhi.
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7. Bodrova, E. and D. Leong (1996) *Tools of the Mind: The Vygotskian Approach to Early Childhood and Education*. Merrill: New Jersey.

### **ADVANCED READINGS**

1. Sainath, P. (1996) *Everybody Loves a Good Drought- Stories from India's Poorest Districts*, Penguin Books: New Delhi.
2. Shiva, Vandana. (2000) *Stolen Harvest: The Hijacking of Global Food Supply*. South End Press: Cambridge, UK.
3. Ausubel, David P. (1969) Some Psychological and Educational Limitations of Learning by Discovery in Anderson, Hans O. (Ed.), *Readings in Science Education for the Secondary School*, Macmillan: India.
4. Bruner, Jerome S. (1960) *The Process of Education*. Atma Ram & Sons: New Delhi
5. Carey, S. (1985) *Conceptual Change in Childhood*, MA: Bradford Books, MIT Press: Cambridge.
6. Driver, Rosalind, et.al. (2006) *Making Sense of Secondary Science: Research into Children's Ideas*. : Routledge Falmer: London.
7. Gilbert, J. et. al. (1982). *Children's Science and Its Consequences for Teaching. Science Education*. John Wiley & Sons, Inc: London.
8. Piaget, Jean (1930). *The Child's Conception of Physical Causality*. Kegan Paul, Trench, Trubner & Co. Ltd: London.
9. Rieber, Robert W. and Aaron S. Carton (1987) *The collected works of L.S. Vygotsky Volume I*, Ch. 6-Development of scientific concepts in childhood..
10. Devereux, J. (2000) *Primary Science*. Paul Champman Publishing: London.
11. Harlen, W. (2006) *Teaching, Learning and Assessing Science 5 – 12*. Sage: London.
12. Howe, A. C. and L. Jones (1998) *Engaging children in Science*. Prentice Hall: New Jersey.
13. Fensham Peter J. et. al (eds.) (1994) *The content of science; A Constructivist approach to its Teaching and learning*. The Falmer Press, Taylor and Francis Inc: London.
14. Gilbert, J. (2004) *The Routledge Falmer Reader in Science Education*, Routledge London.
15. Mintzes, Joel J et.al. (1998) *Teaching science for Understanding: A Human Constructivist View*. Academic press: California.
16. Parkinson. J. (2004). *Reflective Teaching of Science 11-18*. Continuum: London.

### **SCHOOL TEXTBOOKS**

1. EVS textbooks for primary grades from the following NGOs:
    - Digantar, Todi Ramjanipura, Kho Nagoraniya Road, Jagatpura, Jaipur
    - Eklavya, E 10 Shankar Nagar, B.D.A Colony, Shivaji Nagar, Bhopal, Madhya Pradesh
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- Sangati, AVEHI-ABACUS Project Third floor, K.K. Marg Municipal School, Saat Rasta, Mahalaxmi, Mumbai- 400 011
- 2. NCERT (2007) *Looking Around Environmental Studies*, Textbooks for class III-V, New Delhi.
- 3. Ramadas Jayshree (ed) (2004) *Small Science: textbooks and workbooks* (developed by: Homi Babha Centre for Science Education (HBCSE), Oxford University Press: Mumbai.
- 4. Bloom, J. W. (2006) *Creating a Classroom Community of Young Scientists* Routledge: New York.
- 5. Driver, Rosalind, et. al. (1994) *Making Sense of Secondary Science: Research into Children's Ideas*. Routledge Falmer: New York.
- 6. Harlen, W. (2006) *Teaching, Learning and Assessing Science 5 – 12*. Sage: UK.
- 7. Harlen, W. and J. Elstgeest (1992). *UNESCO Source Book for Science in the Primary School*, NBT: New Delhi.
- 8. Harlen, W. and J. Elstgeest (1998). *UNESCO Source Book for Science in the Primary School*. NBT: New Delhi.
- 9. Martin, D. J. (2009) *Elementary Science Methods- A Constructivist Approach*. Thomson Wadsworth: Belmont CA. 5th Edition.
- 10. NCERT, (2005) *Syllabus for Elementary Classes- Volume I*. NCERT: New Delhi.
- 11. Orr, D.W. (2007) Is Environmental Education an Oxymoron? *Journal of the Krishnamurti Schools*. <http://www.journal.kfionline.org/article.asp?issue=11&article=3>.
- 12. Phatak, K. (2009) Walks: to nurture the Natural. *Journal of the Krishnamurti Schools*. <http://www.journal.kfionline.org/article.asp?issue=13&article=3>.
- 13. Seminar Proceedings (1995-96) Seminar on EVS organized by Vidya Bhawan, Udaipur.
- 14. Sarabhai, V. K. et.al. (2007) *Tbilisi to Ahmadabad– The Journey of Environmental Education: A Source book*, Centre for Environment Education: Ahmedabad.
- 15. Driver, Rosalind, et. al. (2006) *Making Sense of Secondary Science: Research into Children's Ideas*. Routledge Falmer: London Introduction.
- 16. Guesene, E. and A. Tberghiem (1985) *Children's Ideas in Science*, Open University Press: Milton Keynes.
- 17. Piaget, Jean (1930). *The Child's Conception of Physical Causality*. Kegan Paul, Trench, Trubner & Co. Ltd: London Chapter. 1 pp. 3-31; Chapter 5.
- 18. NCERT, (2008). *Source Book on Assessment for Classes I – V*, Environmental Studies. NCERT: New Delhi.
- 19. Pollard, Andrew (2002). *Reflective Teaching*. Continuum: London.
- 20. NCERT (2011) *Pedagogy of Science Part II*. NCERT: New Delhi

**Expertise/ Specialization:** *Master's degree in Science and Education.*

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**CONTENT-BASED PEDAGOGY IN EVS (SOCIAL SCIENCE)-II**

<b>Maximum Marks</b>	<b>75</b>
<b>Internal</b>	<b>25</b>
<b>External</b>	<b>50</b>
<b>Contact Periods/week</b>	<b>4</b>

**UNITS OF STUDY****UNIT 1: NATURE OF SOCIAL SCIENCES**

- Social sciences and social studies:- scope and nature with gender different perspectives; role of social sciences in developing children's understanding of their social context and social realities;
- Different perspectives on nature and scope of history:- role of historian, perspectives, sources and evidence in history
- Perspectives in EVS Learning –Bruner, and Ausubel.
- Different approaches to geography
- Different approaches to organize social sciences:- discipline centered, issue-centered, integrated social studies and interdisciplinary social science.
- Importance of concept formation in Social Science.

*It is suggested that the readings be given to students to study at home and then read together and discussed in class by the teacher educator.*

**Practical / Project**

- Sharing their own experiences in schools regarding Social Science Teaching and reporting
- Library work and use of Internet to collect information related to teaching of Social Science in Schools- reporting.
- Observation and reporting of social science lessons by a regular class room teacher and reporting

**UNIT 2: IMPORTANT CONCEPTS OF SOCIAL SCIENCES**

- India's freedom struggle from 1920-1947
  - Institutional structures of free India
    - *Legislature-* (Composition, Centre, State) , law making procedure
    - *Executive-* Powers of the President of India (Legislative, Executive, Emergency)
-

- *Judiciary*- Composition –Powers and functions of the Supreme court (Impeachment procedure)
- **State:** authority, nation, nation-state and citizen, party system and electoral politics
- Decentralization and panchayati raj (Specifically through 73<sup>rd</sup> and 74<sup>th</sup> amendment)
- **Region:** resources, Classification and Conservation – Human as a Resource
- **Market:** Stock Exchange, liberalization, privatization and globalization of economy – education and important concept and its need

*It is suggested that any three consecutive chapters each from history, geography and social and political life sections of classes VI, VII and VIII from the NCERT and/or the Eklavya books be used for detailed class room work on important concepts of social sciences*

#### Practical / Project

- Meaningful reorganization of content to facilitate unit planning and teaching.
- Map reading, preparation and study of maps, time lines and arranging exhibits.
- Field visits and reporting
- Class talk – by experts in various fields
- Organizing participation in local specific cultural events – folk art forms

### UNIT 3: CHILDREN'S UNDERSTANDING- TEACHING-LEARNING MATERIALS & CLASSROOM PROCESSES-PLANNING FOR TEACHING

- Class room process: Observation of class rooms to understand and critically evaluate the transaction of the Social Science Curriculum
- Audio and Audio-Visual , use of ICT-website, computer assisted learning
- Concept map, thematic maps, web charts
- Evolving a Unit Plan framework

*It is suggested that the readings be given to students to study at home and then readtogether and discussed in class by the educator.*

#### Practical / Project

- Visit to community resource sites
- Preparation and submit a study report
- Preparation of scrap book (topic based)

### UNIT 4: PEDAGOGY AND ASSESSMENT

- Concept of data, its sources and evidence in different social science disciplines
-



- Difference between facts and opinion, identifying bias and prejudices; use of personal/experimental knowledge for critical thinking.
- Principles and steps of lesson planning
- Process based skills

*It is suggested that the readings be given to students to study at home and then read together and discussed in class by the educator.*

### Practical / Project

- Collecting information related to CCE from www
- Collecting and use of tools to assess values, performance and attitudes.

### UNIT 5: FIELD-BASED PROJECT: SOME SUGGESTED PROJECTS (ANY TWO)

- Around any particular social science theme, event, date or a phenomenon, weave an oral history project. Through interviews and conversations, understand and give space to the voice of people, and their interpretation and understanding of your subject. Analyze their reliability by comparing these versions from other sources.
  - Use this project to understand the plural versions of history that are available. Also study how certain versions become dominant while cornering other ones.
  - (Adharshila School, Sendhwa, Madhya Pradesh (MP) has published a book on drought in the area developed through interviews. Eklavya in Madhya Pradesh has select CDs on oral history projects done in a few southern states, Udaan magazine has articles on local history such as a local mela, a village history from Babai, and a study on gender in Hoshangabad (MP), available in Sandarbha, an educational journal published by Eklavya. Sandarbha has articles on the history of a school near
  - Indore developed through conversations with the teachers. Learning Curve, a newsletter, published by Azim Premji foundation has published a special issue on Social Sciences in schools).
  - Study the transport needs of a community by analyzing different kinds of vehicles people own. Examine their relation with the gender and the socio-economic standards. Historically, trace the changes that can be seen in the transport needs of the community. Study the changes that are reflected through the historical tracing. Also assess the economic and environmental aspects of various forms of transport.
  - Explore how cartoons, stamps, currency, newspapers, magazines, documentaries, plays, maps, globes, historical film/serial/novel and so on be used in the teaching of social science
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2. Eklavya, (1994), Samajik Adhyayan Shikshan: Ek Prayog, Eklavya: Hoshangabad.
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5. Social Science Textbooks for classes VI, VII and VIII, New Delhi: NCERT 2006-2008.
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14. Sriparna (2010) Role of Projects, Field-work and Discovery in Assessment, Learning Curve, Issue XV, August 2010, Azim Premji Foundation: Bangalore.

## **ADVANCED READINGS**

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  2. Ratnagar, Shireen. (2001) Bhartiya Itihaas Ke Srote. Bhag 1, Eklavya: Bhopal.
  3. Pathak, Avijit (2002) Social Implications of Schooling: Knowledge, Pedagogy and Consciousness. Rainbow Publishers: Delhi. Ch: Sociology of School Knowledge: Texts and Ideology.
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4. Pathak, Avijit (2009) The Moral Quest in Education,
5. Billinge, M., et al. (ed) (1984). Recollections of a Revolution: Geography as spatial science, Macmillan: London. .
6. Carr, E. H. (1961). What is History? Penguin: England. .
7. Geetha, V., Selvam S., Bhog D. (2009). Textbook Regimes: A Feminist Critique of Nation and Identity, Tamilnadu, Nirantar: Delhi.
8. Hursh, W., D. and E. Wayne Ross, (2000). Democratic Social Education: Social Studies for Social Change, Falmer Press: New York.
9. Mehlinger, Howard D. (ed.) (1981) UNESCO Handbook of Social Studies. UNESCO Publications: France.
10. Ross, E. Wayne (ed.) (2006) The Social Studies Curriculum: Purposes, Problems, and Possibilities. Albany: State University of New York Press: New York
11. Paliwal, Rashmi and C.N. Subramaniam, (2006) Contextualizing the Curriculum, Contemporary Education Dialogue, Volume 4:1, Monsoon 2006
12. Shiksha Vimarsha Itihaas Shikshan: Visheshank, November-December 2008, Digantar, Jaipur.

**Expertise/ Specialization:** *Masters degree in Social Science*

**Expertise/ Specialization:** *Master's degree in Social Science and Education.*

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**Expertise/Specialization:** *Master's degree in Hindi and Education with an understanding of language education at the primary and upper primary level*

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Code: **PrC1**

**SECOND YEAR**

## **EDUCATION FOR HOLISTIC DEVELOPMENT-II**

<b>Maximum Marks</b>	<b>: 50</b>
<b>External</b>	<b>: 20 (10+10)</b>
<b>Internal</b>	<b>:30 (15+15)</b>
<b>Contact Periods/week</b>	<b>2</b>

### **SPECIFIC OBJECTIVES**

This course facilitates student teachers in:

- To develop skills of the prospective teachers to transact health and nutritional education activities and physical education curriculum at different grades.
- To develop the competencies of the prospective teachers to act as an agent of peace and enable learners to appreciate peace in their lives.
- To draw out and work with different faculties simultaneously i.e. physical, intuitive, emotional, sensual and mental through practical exercises.
- Build imagination and concentration of the body and mind. Structured exercises for coordinating, enhancing and translating imagination into physical expression.
- To plan suitable activities, select appropriate resource, organize group activities.

### **UNITS OF STUDY(PRACTICAL)**

#### **UNIT 1:HEALTH EDUCATION**

- Cleaning of classroom, play ground, school campus
  - Demonstration, practice and follow-up pf washing hands, brushing teeth, taking food, wearing shoes and good grooming.
  - Measuring and recording of height, weight and chest measurement of students
  - Preparing and maintaining of health records of school children.
  - Drawing pictures and charts on communicable diseases and HIV/AIDS and drug Abuses
  - Preparing balanced diet chart in different age group.
-



## UNIT 2:PHYSICAL EDUCATION

- Preparation of play ground for different activities
- Demonstration practice and follow up of right posture for sitting, standing , walking, writing and reading
- Participating in activities of develop physical fitness, calisthenic exercises with or without apparatus, atleast 10 yoga asanas rhythmic activities like lathi and folk dance
- Practicing of fundamental skills of Athletics and games
- Application of bandages, first aid for injuries to use as and when required
- Preparing charts on traffic and safety rules
- Organization of safety week

## UNIT 3:PEACE AND VALUE EDUCATION

- Discussion based on films and documentaries of educational values
- Readings, discussions and reflections of values based on literature
- Analysis of an issue focusing value dilemmas and value clarification
- Designing tools (including introspection, personal diary, dance, poetry as tools) to facilitate self reflection
- Role play focusing on the themes of equality, tolerance, sharing and caring, a physical impairment
- Analysing any classroom process for identification of values for their appropriateness/inappropriateness and adequacy/inadequacy; Suggesting alternatives
- Identifying causes of conflicts in a school by talking to children, teachers and parents (Brainstorming probable strategies for resolving these conflicts)
- Taking up a short project on value clarification and assessing values during practice teaching
- Creating/sourcing and using a variety of resources for resolving conflicts and promoting peace including a wide variety of anecdotes and stories; pictures and posters; newspaper/magazine clippings; cartoons; slogans and quotations; songs, poems and films; puppets; theatre

**Expertise specialization:** *Subject experts in the related area of teaching.*

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## SCHOOL BASED ACTIVITIES AND SUPERVISED PRACTICAL TEACHING PROGRAMME

**Max Marks : 200**

**External : 100**

**Internal : 100**

### INTERNSHIP IN TEACHING

#### Distribution of days and marks

Sl.No.	Details	No of days	No of lessons	Teaching of				Total Marks	Remarks
				English	Hindi	Maths	EVS		
	Pre-Practice Teaching Activities								
1.	Observation of classroom processes	1							Student teachers to spend a day in a school observing classrooms and children to get a general exposure.
2.	Communication skills	2							This has to be done in workshop mode, focussing on enhancing communication skills of student teachers. Teacher educators to give demo lessons in each subject focussing on communication skills. Discussions to follow.
3.	Process based skills							3	In the 1 <sup>st</sup> year, skills that would support play-way method along with 5 process based skills like critical

									thinking and reflection, life skills, class room management, managing diversity and core teaching skills essential for elementary schools to be taken up. In the 2 <sup>nd</sup> year, all the skills will be dealt with.
4.	Planning and preparation	2							
5.	Simulated Teaching	2	4	4	4	4	4	16	This is meant to provide student teachers more confidence for actual classroom teaching
		12							
6.	Observation of school management & classroom processes	1							Student teachers to be oriented for specific observation, based on their pre-practice teaching experience.
7.	Lesson plans, Lesson Observations, Supervised lessons & Feedback	30	40	15	15	15	15	60	This has to be done from Monday to Friday. Every week, Facilitating learning of all 4 subjects are taken up. However, a student teacher is to be allotted two subjects per week. (at least 2 lessons in each pedagogy will be based on constructivist approach)
8.	Reflections of Practice teaching experience at the Institution	2		4	4	4	4	16	Student teachers come back to institution on all Saturday at the end of each week for collective reflections. This can be organized in the form of group

									discussions. The intend is also expected to maintain adaily reflective journal in which he/she will reflect on his/her practice and also attempt to draw linkages between pedagogy and theory courses he/she has studied
9.	Scout & Guide							5	
		<b>45</b>	<b>48</b>					<b>100</b>	
10.	External Practice Teaching Examination			25	25	25	25	<b>100</b>	

The 25 marks awarded for external teaching practice may be divided as given under:

- Class Room Management - 5 Marks
  - Lesson Plan - 5 Marks
  - Communication Skill - 5 Marks
  - Activity based Teaching - 5 Marks
  - Teaching Learning Material- 5 Marks
- 
- Developing capabilities on instructional skills i.e. communication, managing diversity in class room, development of concept maps, life skills reflective practices etc. in a simulated condition with guided supervision to prepare effective lesson plan for primary and upper primary classes(four periods per week in first year for practice of these skills till they are placed in schools for pre-internship). The performance in the skill will be observed and evaluated out of 10. The best five performances would be taken in to consideration to assign marks out of 50. The class will be divided into small groups and each group will be taken care of by two faculties preferably from different subject background.
  - The candidates have to deliver atleast 40 lessons (10 each from each pedagogy subjects and 5 lessons in each in EVS-I and EVS-II \*) in general class situation. They have to deliver atleast 5 criticism lessons before proceeding for Internship in teaching.
  - The teacher educator of the institute will evaluate the lessons during supervision of practice teaching lessons.
  - Each lesson will be evaluated using 3-point scale
  - The head of the institute in consultation with the subject teacher shall prepare an exhaustive list of topics for teaching in final examination in all the subjects and in all the classes upto class V.

**Decision may be taken whether the lessons will be assessed continuously by Institute Supervisors and cooperating teachers or by following the traditional approach i.e evaluation at the end of internship.**

**Irrespective of subject boundaries teacher educators will be involved in supervising/organising internship programme.**

***Note:** Care should be taken to avoid duplication of topics allotted for final teaching in any subject.*

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**ICTFOR EDUCATION**

<b>Maximum Marks</b>	<b>50</b>
<b>Internal</b>	<b>30</b>
<b>External</b>	<b>20</b>
<b>Contact Periods/week</b>	<b>3</b>

**RATIONALE AND AIM**

Rapid advancements in Information and Communication Technologies (ICTs) has created many changes in our social, cultural, political and economic aspects of our lives. Since they impact the basic human processes of information sharing and communicating, these changes are creating new demands and priorities for teaching-learning in the emerging information society.

In order to exploit effectively the opportunities of ICTs, new methodological and pedagogical approaches need to be understood, created and used by the teachers. The role of a teacher is changing - s/he needs to be exposed to self-learning, peer-learning methods, acquire capabilities that enable response to new and unknown developments. Also new teaching-learning methods and pedagogies are bound to be more and more interlinked with technology.

The curriculum needs to encourage and enable teachers as well as learners to understand the principles and processes of the emerging information society, explore various digital methods that impact teaching-learning processes and systems and acquire basic capabilities, on both ICT literacy as well as integrating these into their own teaching-learning.

**OBJECTIVES**

The course facilitates student teachers in:

- Understanding the evolution and impact of ICTs on society and in the education system.
  - Develop knowledge about computer system and formulate plans for integration of computers into curriculum
  - access global information sources and enhance learning opportunities in the electronic environment across the curriculum
  - developing capabilities in learning and using computer and web to negotiate the digital or network society\*.
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- develop an appreciation of the use of computers in solving a wide variety of problems in ICT.
- Understanding the advantages and dangers of the internet, the new 'virtual world'.
- Use ICTs in the teaching learning process.
- Access available resources, review resources created by peers, collaborate to create their own digital teaching-learning resources.
- develop an awareness of computer technology and its role in society
- encourage creativity and logical thinking.

## UNIT 1: ICT IN EDUCATION

- ICTs and teaching-learning processes-computer literacy, computer aided learning, Digital Native/Immigrant\*
- History of ICTs in education in Indian Education system, ICT and Education policy, different models of ICT programmes adopted, benefits and drawbacks.
- ICT mediation for collaborative and peer learning - Meaning of open education resources, accessing, creating, sharing and critiquing digital resources.
- Virtual community - blogs, emails, discussion forums
- Teacher Professional Development - Blended Learning, its meaning and opportunities available for student-teachers, personalizing learning through ICTs - exploratory, self learning.

### Practical

- **Use of pre-made digital resources available in schools :** Learn how to use pre-made digital resources such as CDs , Videos available and integrate it into meaningful lessons.
- **Creation of digital resources :** Develop digital teaching-learning resources using the public educational software tools, digital cameras and videos.

## UNIT 2: MS EXCEL (Theory & Practical)

- **Introduction:** Office Excel Environment, Quick Access Toolbar, Ribbon, Create, Save, Open and View a workbook, Page Setup, Printing, , Formula Bar
  - **MS Excel Basics:** Row, Column, Cell, Cell Reference, Worksheet, Modify a worksheet and workbook, Keyboard shortcuts, Cell Format, Fill Handle, Paste Special
  - **Functions and Formulas:** Common Math & Trig(**Fact, Mod, Power, Product, Round, Sqrt, Sum**); Statistical (**Average, Count, Min, Max, Median, Mode, Rank**);
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Date & Time (**Today, Now**); Text (**Concatenate, Extract, Len, Left, Right, Mid**); Logical (**And, Or, If, nested If**) Functions; Conditional Formatting

- Creating Charts, Cell reference, merge cells , formatting cells ,
- conditional formatting, filter, sort, paste special
- **Advanced Features:** Create and edit charts and graphics, Filter and sort table data, Import and export data.

### UNIT 3: MULTIMEDIA AND NETWORK(Theory & Practical)

- Explore use of a variety of ICT devices in Education - Digital Camera/Video, Radio.
- Explore the use of ICT applications that are available for children with disabilities.
- **Network:** Definition, Types of Network, Networking Devices, Networking cables, Client, Server, Hackers, Debug, Firewall
- **Computer Tools & Utilities:** Disk Utilities, System Tools, Files & Directories, Working with the Windows Environment, Games and entertainment
- **Computer Virus:** Temporary files, Cookies, Battling Virus. Bug, Computer Virus, Creakers,

#### Practical

- Identify physically devices interfaces installed with a PC, Check status of installed devices using system information and device manager.
- Practice facilities provided by the device manager. Install a new device (internal/external) to the PC and carryout necessary setting.
- Identify components of a simple LAN environment.
- Identify different types of cables used for networking.
- 

### UNIT 4: INTERNET (Theory & Practical)

- Internet: Basics of Internet, World Wide Web
  - Internet: A Library, Protocol, HTTP, HTML, Browser, Search Engine, Surfing, Instant messenger services, News, download files and softwares
  - **Cyber bullying:** Chatting, Social Networks and Email
  - **E-Mail:** E-mail Address, configure E-mail Account, log to an E-mail, Receive E-mail, Sending mails, sending files an attachments and Address Book
  - Web 2.0 tools including blogs, wikis; navigating learning environment like Moodle, Internet security controls.
  - **Online Privacy:** What information is private? What kind of private information is safe to put on the internet? How to control privacy of my personal information
-



- Methods of regulation available for teachers or parents. (both technological and pedagogical)
- Teleconferencing, Video-Conferencing, E-Commerce and M-Commerce

*\* Marc Prensky coined the term digital native in his work Digital Natives, Digital Immigrants published in 2001*

### **EXTERNAL EXAMINATION:**

The external examination for ICT consists of 20 marks. The above marks are distributed as mentioned below:

1. Oral Test	- 2 Marks
2. Practical Record	- 3 Marks
3. Practical Test	- 15 Marks
<b>Total</b>	<b>- 20 Marks</b>

### **MODE OF TRANSACTION**

Practice: Computer Lab

- Extending practical experience to the application of computers
- Conducting Theory Classes: Classroom Discussions, Reviews, Preparation, Use of Audio Visual Media, Lecture, Demonstration and other suitable methods.
- Integrating ICT in other subjects through Computer Aided Learning
- Adopting Individual Centred Approach

### **SUGGESTED READINGS**

1. E-world Computers: Basic and Applications by Anshu Kumar and Shweta Malik, a series of eight books
  2. Information and Communication Technologies in Everyday Life: A Concise Introduction and Research Guide, Leslie Haddon - 29-Oct-2004 - 183 pages
  3. ICT Law Book: A Source Book for Information and Communication Technologies and Cyber Law, By Adam J. Mambi
  4. Essential ICT A Level: AS Student Book for AQA, By Stephen Doyle
  5. Applied ICT GCSE, By Stephen Doyle
  6. Communication Technologies, Dennis O. Gehris, Linda F. Szul
  7. Technologies of Effective Communication, Volume 1, William M. Del Grande, Xlibris Corporation
  8. PC Magazine Windows XP Digital Media Solutions, Paul Thurrott, John Wiley & Sons, 18-Mar-2005
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9. Absolute Beginner's Guide to Computer Basics, Miller, Pearson Education India, 01-Sep-2007 - 456 pages
  10. Computer Manual, Dell Keegan-Martin, Haynes Publishing PLC, 01-Oct-2000 - Microcomputers- 144 pages
  11. Exploring Multimedia for Designers, Ray Villalobos, Thomson Delmar Learning, 2008 - Computers - 286 pages
  12. How to use your computer, Lisa Biow, Ziff-Davis Press, 01-Jan-1996 - Computers - 319 pages
  13. Haynes Computer Manual: The Step-by-step Guide to Upgrading, Repairing and Maintaining a PC, Kyle MacRae, Haynes, 01-Nov-2004 - Microcomputers - 196 pages
  14. Computer Troubleshooting: The Complete Step-by-step Guide to Diagnosing and Fixing Common PC Problems, Kyle MacRae, Gary Marshall Haynes Publishing PLC, 2008 - Debugging in computer science - 170 pages
  15. Designing Multimedia: A Visual Guide to Multimedia and Online Graphic Design, Lisa Lopuck, Peachpit Press, 1996 - Computers - 148 pages
  16. Internet: The Complete Reference: Millenium Edition Books, Authors Margy Levine Young, Mc Graw Hill Education Publication, 2002
  17. Office 2007, in easy steps, 2010, Mc Graw Hills publication, 240 pages
  18. Office 2013, in easy steps, Mc Graw Hills publication, 240 pages
  19. SharePoint 2010 Administration and Development (Jean Paul)
  20. Excel 2010 Books, in easy steps, 2010, Mc Graw Hills publication, 192 pages
  21. Excel 2007 Books, in easy steps, Mc Graw Hills publication, 192 pages
  22. Wireless Network Security : A Beginner's Guide Books, Mc Graw Hills publication, 368 pages
  23. Computer Networks A Top-Down Approach Books, Authors Forouzan, Mosharraf, Mc Graw Hills publication, 2011, 960 pages
  24. E-world 1-8 , by Anshu Kumar, Shweta Malik, Kumar Anshu
  25. E-world ICSE 6-8 by Anshu Kumar, Shweta Malik, Kumar Anshu
  26. Internet and World Wide Web Simplified, Ruth Maran, Paul Whitehead, IDG Books from MaranGraphics, 01-Jan-1997 -Internet - 223 pages
  27. Linux for newbies - become an Open-Source Computer hero, Marek Mularczyk, Sai Training Ltd, 2012 - Linux device drivers (Computer programs) - 210 pages
  28. Networking With Windows Xp, Christian Peter, Oliver Kuerten, Perseus Distribution Services, 01-May-2002 -Computers - 160 pages
  29. Multimedia: making it work, Tay Vaughan, Tata McGraw-Hill Education, 01-Jan-2006
  30. Technology in action, Alan Evans, Kendall Martin, Mary Anne Poatsy, Pearson/Prentice Hall, 01-Jan-2006 - Business & Economics - 649 pages
  31. The Ultimate Multimedia Handbook, Jessica Keyes, McGraw-Hill Osborne Media, 01-Jan-1997 - Computers- 1024 pages
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32. Networking With Windows Xp, Christian Peter, Oliver Kuerten, Perseus Distribution Services, 01-May-2002 -Computers - 160 pages
33. Multimedia: making it work, Tay Vaughan, Tata McGraw-Hill Education, 01-Jan-2006
34. Internet and World Wide Web Simplified,Ruth Maran, Paul Whitehead,IDG Books from MaranGraphics, 01-Jan-1997 -Internet - 223 pages
35. Teach yourself networking visually,MaranGraphics Inc, Ruth Maran,IDG Books Worldwide, 1997 - Computers - 305 pages
36. Windows XP home networking, Paul Thurrott, Wiley, 17-Jul-2002 - Computers - 388 pages
37. Windows XP: The Survival Manual, Kyle MacRae, Haynes Publishing Group, 2003 - Microsoft Windows. (Computer file) - 164 pages
38. Windows 7: Step by Step, Joan Preppernau, Joyce Cox, Joan Lambert Microsoft Press, 01-Sep-2009.
39. Excel Programming: Your Visual Blueprint for Creating Interactive Spreadsheets by Jinjer Simon
40. Developing Successful Ict Strategies: Competitive Advantages in a Global Knowledge-driven Society (Premier Reference Source), by M. Hakikur Rahman
41. Frameworks for ICT Policy: Government, Social and Legal Issues, Esharenana E. Adomi (Delta State University, Nigeria), Release Date: July, 2010. Copyright © 2011. 352 pages.
42. Microsoft Office 2010 Plain & Simple by Katherine Murray, Publication Date: July 4, 2010
43. Microsoft Office 2013 Essentials Quick Reference Guide (Cheat Sheet of Instructions, Tips & Shortcuts - Laminated Card) by Beezix Inc.
44. Microsoft Word 2010 Introduction Quick Reference Guide (Cheat Sheet of Instructions, Tips & Shortcuts - Laminated Card) by Beezix Inc.

### **Suggested list of CDs/DVDs, Films, Websites**

<http://www.unescobkk.org/education/ict/ict-in-education-projects/training-ofteachers/training-modules/>

<http://www.public-software.in>

<http://karnatakaeducation.org.in>

<http://www.wikipedia.org>

<http://www.kn.wikipedia.org>

<http://www.khanacademy.org>

**Expertise specialization:** *Master's Degree in Computer Application or Equivalent with understanding at the primary / upper primary level.*

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**Note:***All teacher-educators will be required to develop skills for this paper as per the syllabus. All Teacher-educators and student-teachers are required to create email ids.*

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**ACTION RESEARCH****Maximum Marks : 25**

A Committee will be formed consisting of the teaching faculty of DIET in the beginning of the session. The trainees will be grouped and each group will be guided and counsedlled by a faculty to conduct Action Research. Selection of the guide will be done by the committee. Evaluation of the Action Research Project will be done at the end of the session by the committee after presentation of the project by the trainee. The marks may be distributed as mentioned below:

1. Report of Action Research	- 15 marks
2. Presentation – Reflection	- 10 marks
<b>Total</b>	<b>- 25 marks</b>