

**RANI DURGAVATI VISHWAVIDYALAYA,
JABALPUR**



**Syllabus
for
BACHELOR OF EDUCATION**

**Two year
B.ED.SCIENCE DEGREE COURSE**

I, II, III & IV Semesters

2015-16 Academic Year and Onwards

RANI DURGAVATI VISHWAVIDYALAYA,

JABALPUR

Syllabus & Course Structure

For

BACHELOR OF EDUCATION SCIENCE (B.Ed. Sci.)

COURSE STRUCTURE:

B.Ed. Sci. Course Scheme of Examination – Semester Scheme

Semester – I

Course/Paper	Hours per week	Total marks	Internal (Formative)	External (Summative)
Group A: Core Course				
CC 1: Childhood & Growing Up	6	100	25	75
CC 2. Education in India- Status, Problems and Issues	6	100	25	75
CC 3. Language across the curriculum – Part 1	4	50	15	35
CC 4. Curriculum Development & School	6	100	25	75
EPC 1 Reading and Reflecting on Texts	2	50	20	30
Total		400	110	290

Note: Assignments & Tasks for Courses 1,2,3,4

Second Semester

Course/Paper	Hours per week	Total marks	Internal (Formative)	External (Summative)
Group B: Core Course				
CC 1: Learning & Teaching	6	100	25	75
2. PC (I) Pedagogy of a School Subject – Part 1 (Subject: 1 Chemistry /Physics)	6	100	25	75
3. PC (II) Pedagogy of a School (Part II): Subject Knowledge and the Related Pedagogic Dimensions (Subject: 1 Biology /Maths)	6	100	25	75
4. Language across the curriculum- Part -2	4	50	15	35
EPC 2 Drama & Art in Education	2	50	20	30
Total		400	110	290

Note: 1. Assignments & Tasks for Courses 1,2,3,4

Third Semester

Course/Paper	Hours per week	Total marks	Internal (Formative)	External (Summative)
Group A: Core Course				
CC 1: Pedagogy of a School Subject (Part I &II):		50	15	35
2. School Internship		350	150	200
3. EPC 1- Educational Psychology Practical		50	10	40
Total		450	175	275

Note: 1. Twenty Weeks (Four Weeks) Practice Teaching & (Sixteen Weeks) Internship school

INTERNSHIP IN TEACHING

The activities and the allotment of marks for internship in teaching in each method of teaching school subjects are as following

Sl.No.	Particulars	Sem. III Marks
1	Micro Teaching under Simulated conditions (Eight Skills)	(16*3) = 48
2	Lesson Planning(practice Teaching)	100
3	Execution of the lesson in the actual class room Situation& School Work	100
4	Unit Plan	40
5	Unit Test Administration Evaluation and interpretation	40
6	Resource unit/instructional kit/workbook/working models.	12
7	Observation records	10
	Total	350

Fourth Semester

Course/Paper	Hours per week	Total marks	Internal (Formative)	External (Summative)
Group B: Core Course				
CC 1: Gender, School & Society	6	100	25	75
2. Educational Technology & ICT	6	100	25	75
3. Creating an Inclusive School	6	100	25	75
4. Optional Course: (Any One of the Subject mentioned below)	6	100	25	75
a. Value Education				
b. Futurology in Education				
c. Health and Physical Education				
d. Guidance and Counseling in School				
e. Environmental Education				
f. Action Research				
EPC 3 : Understanding the Self	2	50	20	30
EPC 4 : Understanding of ICT	2	50	20	30
		500	140	360

Note: Assignments & Tasks for Courses 1,2,3,4

Eligibility to take the Examination

- a. A candidate shall appear at the final examination if he/she satisfactorily completes, besides fulfilling all other conditions under regulation of this syllabus.

Guidelines for Internal Assessment:

- 1 The college shall submit to the University all the internal assessment marks pertaining to theory and practicum as detailed in above to the University a week before the commencement of the theory examination along with CD in the format supplied by the University.
- 2 The Registrar (Evaluation) shall arrange for scrutiny of internal marks by constituting a committee of 2-3 members. The committee shall ascertain IA marks in the light of guidelines. The Registrar (Evaluation) shall call for all the IA related records of any Affiliated College without any prior intimation or the screening committee may visit B.Ed. (Science) college at any time during the office hours without any intimation; and during such surprise visit, the screening committee shall verify the IA records.
- 3 The individual colleges shall also submit the required descriptive statistics i.e., Frequency distribution, Mean, for (i) Total Internal Assessment (ii) Individual papers and (iii) Internship in Teaching as directed by the Registrar(Evaluation).
- 4 The Principal of the college shall submit a fair copy of the moderated consolidated marks lists incorporating the directions of the Registrar (Evaluation).
- 5 In the instance of any malpractice coming to the knowledge of the Registrar (Evaluation) the matter will be seriously viewed by the University for appropriate action.
- 6 The decision of the University shall be final.

Scheme of Examination:

- 1 There shall be a University Examination at the end of each semester.
- 2 Scheme of studies and examination of the B.Ed. Science Course (vide Annexure 1)
- 3 The External and internal assessment for each Theory and MOT paper shall be 75 and 25 marks respectively.

Theory Examination – Question Paper Pattern

Pattern of all Question Papers for B.Ed. papers (duration of examination-3 hrs)

Section	No. of questions to be answered	Marks per question	Total marks	Nature of objectives to be covered
A	11 Questions out of 14 questions to be answered	5	55	Knowledge / Understanding / Comprehension type questions. Each should answered in not more than one Page (100-150 Words).
B	2 Questions out of 4 question to be answered	10	20	Application, Analysis, Synthesis, Evaluation type questions Each should be answered in about 2 to 3 pages (400-500 Words)
		Total	75	

Note : 1. All units in a given subject/paper should be adequately represented in the question paper. 2. Due weightage in terms of marks should be given to each unit.

Internal Assessment:

A. The Internal Assessment marks of the theory papers are as follows.

Particulars	Marks
1. Attendance	5 Marks
2. 1 st Test	5 Marks
3. 2 nd Test	5 Marks
4. Assignment	10 Marks
Total	25 Marks

Attendance Marks Split-up

Attendance (in percentage)	90 and above	Above 80 to 90	Above 75 to 80	70 and below
Marks	5	4	3	No Marks

Community Orientation	Grades
a. SUPW	
b. PE/Games	
C. Citizenship Training Camp (CTC)	

Grades (A= Excellent, B=Good, C= Average)

SYLLABUS

Bachelor of Education (B.Ed. Science) Course

Compulsory Paper

Semester – I

CC 1: Childhood & Growing Up

Objectives: •

- To develop an understanding of different aspects of a child's physical, motor, social and emotional development.
- To understand the developmental process of children with diverse abilities in social, cultural and political context.
- To build sensitivity towards children's developmental needs and capabilities, within their socio-cultural context.
- To develop a sensitive and critical understanding of the different social/educational/cultural/political realities at the core of the exploration into childhood.
- To build an interdisciplinary frame work to interpret, analyse observations and interactions from cross culture psychology.
- To develop critical deconstruction of significant events that media highlights and creates during childhood
- To provide hands-on experiences to interact with children, and training in methods to understand aspects of the development of children.
- To develop the power to interpret how gender caste and social class may impact the lived experience of children.

CONTENT

Unit 1: Perspectives in Development

- Concept , Meaning ,Scope and Function and Educational Psychology
- Introduction to development: concept and introduction to perspectives in development, humanistic psychology and developmental theory
- Enduring themes in the study of development: development as multidimensional and plural; Development as continuing through the life span; ways in which development is continuous/discontinuous? ; Socio-cultural contexts influencing development
- Gathering data about children from different contexts: naturalistic observations; interviews; reflective journals about children; anecdotal records and narratives; clinical methods with reference to Piaget
- Method: Longitudinal, Cross Sectional, Sequential, Cohort methods: Biographical, Case study and Observational method.

Unit 2: Stages of Human Development

- Child as a developing individual; a psycho-social entity; stages of development
- Developmental characteristics of a child and an adolescent: physical, cognitive, social, emotional, moral and language; their interrelationships
- Developmental tasks of childhood and adolescence and their implications
- Factors influencing development such as heredity & environment, media, nutrition, child-rearing practices, siblings and peers
- Commonalities and diversities within the notion of childhood and how multiple childhoods are constructed with particular reference to the Indian context-Living in an urban Slum, Growing girl, and Growing up in dalit household

Unit 3: Social and Emotional Development

- Basic understanding of emotions, how differential gender socialization occurs • Personality development: Freud; psycho-social development-Erikson; influence of early childhood experiences on later personality.
- Social theories and gender development: meaning of gender roles; influences on gender roles, stereotypes, gender in the playground.
- Development of emotions: functions of emotions, attachment-Bowlby.

Unit 4: Contexts of Socialization

- Concept of socialization: family and child relationships; parenting, child rearing practices
- Schooling: peer influences, school culture, relationships with teachers, teacher expectations and school achievement; being out of school, overage learner
- Relationships 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: implications for inclusion.

Essential Readings

- Cole, M., Cole, S. R. and Lightfoot, C. (2004). *The Development of Children*. New York: Worth Publishers. Chapter 1: The study of Human Development.
- Newman, B. M. and Newman, P.H. (2007). *Theories of Human Development*. London: Lawrence Erlbaum Associates, publishers. Chapter 1: Introduction.
- Papalia, D. E. and Olds, S. W. (2003). *Human Development*. New York: McGraw Hill Higher Education. Chapter 1: The Study of Human Development, Chapter 2: Theory and Research, Chapter 4: Physical Development During the First Three Years, Chapter 7: Physical Development in Early Childhood, Chapter 9: Physical Development in Middle Childhood.
- Saraswathi, T.S. (Ed.) (1999). *Culture, Socialization and Human Development: Theory, Research and Applications in India*. Sage publications. Chapter 4: Theoretical Frameworks in

Cross-cultural Psychology, Chapter 6: Individualism in a Collective Culture: A Case of Co-existence of Opposites.

- Vasanta, D. (2004). Childhood, Work and Schooling: Some Reflections. Contemporary Education Dialogue, Vol. 2(1), 5-29.
- Mukunda, K. V. (2009). What Did You Ask in School Today? A Handbook on Child Learning. Noida: Harper Collins. Chapter 4: Child Development, 79-96.
- Readings for Discussion 1. Aries, P. (1965). Centuries of Childhood-A social history of the family life. Random House Inc. Chapter 1: The Ages of Life, Chapter 2: The Discovery of Childhood, and Conclusion - The two concepts of childhood.
- Harris, M. and Butterworth, G. (2002). Developmental Psychology: a student's handbook. New York: Taylor & Francis. Chapter 1: A Brief History of Developmental Psychology.

Advanced readings

- Kakkar, S. (1978). Indian Childhood: Cultural Ideas, And Social Reality. New Delhi: Oxford.
- Nambissan, G. (2010). Exclusion and Discrimination in Schools: Experiences of Dalit Children; Working paper series Volume 01, Number 01, Indian Institute of Dalit Studies and UNICEF.
- Kakkar S. (1991). The Inner World: A Psycho-analytic study of childhood and society in India. Delhi: Oxford University Press.
- Sandra, L. Bem (1987). Gender Schema Theory and its Implications for Child Development: raising gender a schematic children in a gender schematic society, in M.R. Walsh, (ed). The Psychology of Women. Harvard University Press Cambridge, 206-226.
- Weiner, M. (1991). The State and the Child in India: Child Labour and Education Policy in Comparative Perspective. Princeton: Princeton University Press.

CC 2. Education in India- Status, Problems and Issues

Objectives:

- To develop perception of the role and functions of a teacher as envisaged in the NPE 1986 and to familiarize the Student Teacher with the different projects and schemes at Secondary level in M.P.
- To develop an understanding of the brief historical background of Indian Education with special reference to Secondary Education.
- To develop an understanding of the objectives and scope of Secondary Education.
- To develop an awareness of the professional ethics.

CONTENT

UNIT 1: Concept of Education –

- Indian and Western. Aims of Education; Functions of Education.
- Education as an instrument of Social Control, Social Change,
- Preservation of Cultural Heritage and Values.
- School and the society, Culture and Education, School as a Social System. Agencies of Education – Informal, Formal and Non-formal .

UNIT 2: Salient Features of Ancient Indian Education –

- Vedic, Buddhist, Islamic
- Tradition in Education.
- Major landmarks of British System of Education in Colonial India particularly from the viewpoint of Aims, Structure, Curricula and Methods of Education.
- Efforts towards evolving a national system of Education.

Unit -3: Secondary Education

- General Aims and Objectives of Secondary Education and Structure., Education during Post Independence Period. Constitutional provisions for education, Secondary Education commission 1952-53, Education Commission 1964-66, New Education Policy 1986 with Programme of Action 1992,
- Different streams of Secondary Education 1) C.B.S.E. 2) I.C.S.E. and 3) KSEEB with respect to curriculum.4) Examination System etc.,
- Secondary School Teacher – Qualifications, Competences, Job Profile, Professional Code of Ethical conduct.
- Role of Secondary school teacher in Emerging India.

Unit - 4: Teacher Education and Secondary School Curriculum

- Status, Aims and Objectives of Teacher Education in India.
 - Role and Responsibilities of NCTE NCERT, DSERT, CTE, IASE
 - Professional organisation in the field of Teacher education
 - Rastriya Madhyamika Shikshana Abiyana (RMSA), NCF-2005
 - Programmes for enhancing efficiency and productivity of school teachers- In-service training – orientation and content enrichment programmes.

Assignments: (Any two of the following.)

- Prepare and execute a plan for making at least two children and one adult literate from the community.
- Plan and organize a field trip/excursion to a nearby area of educational importance and submit a report.
- Visit to block or district and divisional educational offices and study their educational management pattern and submit the report.
- Prepare one project for institutional planning.
- Critically Study the working of the one of the parent teacher association in any two secondary schools.
- A critical survey of co-curricular activities in secondary schools.

Reference:

- 📖 Anand C. L. *et al.*, (1993) *Teacher and Education in the emerging Indian society* NCERT New Delhi.
- 📖 Coombs Philips H (1985) *The World Crisis in Education*. New York. Oxford University Press, New York
- 📖 Delors, Jaques (1996) *Learning the Treasure within Report to UNESCO of the Internal Commission on Education for Twenty First Century* UNESCO.
- 📖 Dewey I (1952) *Experience in Education*, Collier Macmillan.
- 📖 Dewey S (1956) *Democracy in Education* New York: Macmillan.
- 📖 Gandhi M. K. (1956) *Basic Education*, Ahmedabad Nalijiban.
- 📖 Government of India (1952) *Report of the Secondary Education Commission*, New Delhi:- Ministry of Education.
- 📖 Government of India (1966) *Report of Education Commission Ministry of Education*, New Delhi.
- 📖 Government of India MHRD (1986) (Revised 1992) *National Policy of Education*. New Delhi.
- 📖 Government of India (1992) *Report of Core Group on Value Orientation of Education Planning Commission*.
- 📖 Kneller G. F. (1978) *Foundation of Education*. New York: Johri Willy and Sons.

- 📖 Kneller George (1978) *Introduction to Philosophy of Education*, New York: John Willey and Sons INC.
- 📖 Mani R S. (1964) *Educational Ideas and Ideals of Gandhi and Tagore*, New Book Society, New Delhi.
- 📖 Mathur S.S. (1988) *A Sociological Approach to Indian Education*, Agra. Vindo Prakashan.
- 📖 Mookherjee K.K. (1972) *Some Great Educators of the World*. Fas Gupta & Ce Put Ltd. Calcutta.
- 📖 Mukherjee S. N. (1966) *History of Education in India*, Baroda. Acharya Book Depot.
- 📖 Naik J. P. and Syed N (1974) *A Student's History of Education in India*, New Delhi. Macmillan Co.
- 📖 Naik J. P. (1975) *Equality, Quality & Quantity: The Elusive Tringle of Indian Education Bombay* : Allied Publishers.
- 📖 NCTE (1988) *Gandhi on Education* , New Delhi
- 📖 Salamaliha(1979) *Education in Social Context*. New Delhi. NCERT.

CC 3. Language across the curriculum – Part 1

Objectives

- Aim of the Course Language is the medium for comprehending ideas, for reflection and thinking, as well as for expression and communication.
- Enhancing one's facility in the language of instruction is thus a vital need of student- teachers, irrespective of the subject areas that they are going to teach.
- This course is visualized as a range of primarily text-based language activities, which will aid in strengthening the ability to 'read', 'think', 'discuss and communicate' as well as to 'write' in the language of instruction.
- It is likely that student teachers will begin the programme with different levels of language ability; hence group work that supports different levels of learning is envisaged as a central feature of this course.

Course outline

UNIT 1: ENGAGING WITH NARRATIVE AND DESCRIPTIVE ACCOUNTS

- The selected texts could include stories or chapters from fiction, dramatic incidents, vivid descriptive accounts, or even well-produced comic strip stories.
Suggested Activities
- Reading for comprehending and visualizing the account (individual plus group reading and discussion/explanation)
- Re-telling the account – in one's own words/from different points of view (taking turns in a smaller group)
- Narrating/describing a related account from one's life experience (in front of a smaller group)
- Discussion of characters and situations – sharing interpretations and points of view (in a smaller group)
- Writing based on the text, e.g. summary of a scene, extrapolation of story, converting a situation into a dialogue, etc. (individual task).

UNIT 2: ENGAGING WITH POPULAR SUBJECT-BASED EXPOSITORY WRITING

- The selected texts could include articles, biographical writing, or extracts from popular non-fiction writing, with themes that are drawn from the subject areas of the student teachers (various sciences, mathematics, history, geography, literature/language pieces) For this Unit, the student-teachers should work in groups divided according to their subjects, within which different texts could be read by different pairs of student-teachers.

Suggested Activities

- Reading to extract overall meaning, information, subject knowledge (guided reading in pairs and simple note making)
- Identifying major concepts and ideas involved and making notes on these in some schematic form – flow diagram, tree diagram, mind map, etc. (guided working in pairs)
- Explaining the gist of the text/topic to others (in the larger subject group)
- Attending the writing style, subject-specific vocabulary and 'perspective' or 'reference frame' in

which different topics are presented—this will vary across subjects and texts, and requires some interpretative skills for 'placing' the context of each text (group discussion and sharing)

- Writing a review or a summary of the text, with comments and opinions (individual task)

UNIT 3: ENGAGING WITH JOURNALISTIC WRITING

- The selected texts would include newspaper or magazine articles on topics of contemporary interest. Student-teachers can be grouped randomly for this Unit.

Suggested Activities

- Using reading strategies, such as scanning, skimming and reading for extracting information – as appropriate for initial reading of articles (guided individual task)
- Analysis of structure of the article, identifying sub-headings, key words, sequencing of ideas, use of concrete details, illustrations and/or statistical representations, etc. (guided working in pairs)
- Critical reading for attending 'framing' of the article, point(s) of view presented, possible biases or slants (small group discussion)
- Researching and writing articles on topics of local interest (working to produce a local interest magazine).

References :

1. Bose, R. B. N. & Sterling, T. S. : Elements of English Rhetoric and Prosody; Chakraborty, Chatterjee Co. Ltd. Calcutta, Latest Edition.
2. Bright, J. A. & McGregor, G. P.; Teaching English as a Second Language, ELBS & Longman, London, 1978.
3. Brumfit, C. J. & Johnson, K.; The Communicative Approach to Language Teaching, OUP, Oxford, 1979.
4. Heaton, J. B. : Language Testing, Modern English Publication Ltd., Great Britain, 1982.
5. Hornby, A. S. : Oxford Advanced Learner's Dictionary of Current English, OUP, Oxford, Latest Edition.
6. Johnson, J.; The Communicative Approach to Language Teaching, OUP, Oxford, 1979.
7. Johnson, K. : Communicative Syllabus Design and Methodology, Pergamum Press, Oxford, 1982.
8. Jones, D. : English Pronouncing Dictionary, ELBS, London, Latest Edition.
9. Kemp, et al.; Designing Effective Instruction, Macmillan College Publishing Company, 1994.
10. Krashen, S.; Second Language, Acquisition and Second Langu., Learning, Pergamum Press, New York, 1979.

Suggested Reading:

Agnihotri, R.K., Khanna, AL, 1994(Eds). Second Language Acquisition: Socio-Cultural and Linguistic Aspects of English in India(RALI), New Delhi, Sage Publication

Baruah, T.C. 1984, The English Teachers Handbook, New Delhi, Sterling Publishers.

Bansal, R.K. and Harrison, J.B., 1972: Spoken English in India, Madras, Orient Longman

Brown, J.D. 1996: Testing in Language Programmes, Upper Saddle River, NJ, Prentice Hall Regents

Chomsky, N. 1986. Knowledge of Language, New York ,Praeger

Crystal David, 1997. Globalization of English, Cambridge; Cambridge University Press

Ellis, R. 1992, The Study of Second Acquisition, Oxford, Oxford University Press

Khulchandani, L.M. 1988: Language in a plural society, Delhi, Motiram Banarasidas and Shimla

Lewis.M. 1993, The Lexical Approach: The State of ELT and a way Forward, Hove: Language Teaching Publications.

Lock, G. 1996. Functional English Grammar, Cambridge: Cambridge University Press

Mohanty, Bilingualism in a Multilingual Society: Psycho Social and Pedagogical Implication, Mysore: CIIL

Nagaraj, Geeta:2001 : English Language Teaching, Orient Longman Limited, Kolkata

NCERT, 2000, Continuous and Comprehensive Evaluation, New Delhi

NCERT, 2005. National Curriculum Framework, 2005, New Delhi

Nuna, D. 1991, Language Teaching Methodology, London Prentice Hall

Richards, J.C, and Rodgers, T.S. 1986, Approaches and Methods in Language Teaching, University of Hawaii, Maroo: Cambridge University Press

Vygotsky, L.S. (1978), Mind in Society, Harvard University Press: Cambridge.

Widdowson, H.G. 1992, Aspects of Language Teaching, Oxford University Press

CC 4. Curriculum Development & School

OBJECTIVES:

CREDITS: 3

- To acquaint students with the nature and types of curriculum.
- To acquaint students with the context of curriculum development and some Innovative Curriculum Models.
- To familiarize students with Designing of Curriculum.
- To give practical experience in Evaluating, Designing and Reviewing Curriculum.

CONTENT:

UNIT I:

- Curriculum – Meaning and Nature, types of Curriculum, Syllabus and Text books –their interrelationship. Issues and problems of existing curriculum.

UNIT II:

- Curriculum Construction, Curriculum Development and Curriculum Designing: Concepts and differences. Determinants and motives of Curriculum Development. Different Curriculum Models-open university, Open School, etc.

UNIT III:

- Steps of Designing different Curriculum. Selection, Gradation and Organisation of Curriculum. Development and Implementation of Curriculum. Enrichment of Curriculum.

UNIT IV: PRACTICALS

- Evaluation of B.Ed. Curriculum
- Designing a Curriculum in a given condition Reviewing of Syllabus/Books

REFERENCES

- Ashcroft, Kate and Palacio, David: The Primary Teacher's Guide to the New National Curriculum. London: Flamer Press, 1995.
- Doll, Ronald C.: Curriculum Improvement – Decision Making and Process. London; Allyn and Bacon, 1996.

- Eccles tone, Kathryn: How to Assess the Vocational Curriculum. London: Kogan Page Ltd. 1996.
- Hendricks, Joanne: Total Learning Developmental Curriculum for the Young Child. New York: Maxwell McMillan International, 1994.
- Hooper, R.: The Curriculum Context, Design and Development. The Chaucer Press Ltd., Great Britain, 1977.
- Kaushik, S.L.: Shikshakram Vikas. Rajasthan Granth Academy. Jaipur, 1977.
- Kelly, A.V.: The Curriculum – Theory and Practices. Harper and Row Publishers, London, 1982.
- Kerr, J.E. (Ed.): Changing the Curriculum. University of London Press Ltd., London, 1970.
- Lawton, D.: Class, Culture and the Curriculum. Routledge and Kegan Paul Ltd., London, 1975.
- Lowy, A. (Ed.): Handbook of Curriculum Evaluation. International Institute for Educational Planning, New York, 1977.
- Lowy, A.: The International Encyclopaedia of Curriculum. New York: Pergamum Press, 1991.
- Mamidi, M.R. and Ravishankar: Curriculum Development and Educational Technology, Sterling Publishers Pvt. Ltd., New Delhi, 1983.
- Nichols, S.H. and Nichols, A.: Developing Curriculum. George Allen and Unwin, Boston, London, 1976.
- Oriosky, D.E. and Smith, B.D.: Curriculum Development – Issues and Insights. Rand McNally College Publishing Company, USA, 1976.
- Prasad, Janardan & Kaushik, V.K. Advanced Curriculum Construction. New Delhi: Kanishka Publishers, 1997.
- Richmond, K.W.: The School Curriculum. Methuen and Co. Ltd., London. 1973.
- Saylor, J.G. and Alexander, W.H.: Curriculum, Planning for Modern Schools. London: Holt, Rinehart and Winston, Inc., 1966.
- Wiles, Jon. & Bondi, Joseph C.: Curriculum Development –A Guide to Practice. London: Charles E. Merrill Publishing Co., 1984.

EPC 1 READING AND REFLECTING ON TEXTS

OBJECTIVES

- To enable the students to read and response to a Varsity of text in different ways
- To develop Meta cognitive awareness
- To enhance the capacities as readers and writers by becoming participants in the process of reading
- To enable the student teachers to work on the field and make predictions and check their predictions and then to summarize.

UNIT I Reading Skills

- Creating 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

UNIT II Reading with comprehension

- Reading for global and local comprehension
- Inferences, analysis and extrapolation
- Reading strategies including word-attack strategies
- Discourse analysis
- Using reading as a tool for reference skills i.e. use of dictionary, encyclopaedia and internet
- Using ideas of critical literacy to analyse chapters from textbooks .
- Acquisition of Reading Skills

UNIT III Types of text

- Narrative text
- Expository
- Autobiographical Narratives
- Field Notes
- Ethnographies
- Addressing different types of skills and strategies

Mode of Transaction

- Participating in tasks and activities to improve proficiency in the receptive and productive skills of English.
- Text analysis of school textbooks to improve skills in critical literacy.
- Reflecting on one's own learning to make connections with pedagogy.

Essential Readings

1. Lightbown, P. M & Spada, N. (1999). *How Languages are Learned* Oxford: Oxford University Press
2. Maley, A. & Duff, A. (1991). *Drama techniques in language learning: A resource book of communication activities for language teachers* (2nd ed.). Cambridge: Cambridge University Press.
3. Morgan, J. & Rinvoldi, M. (1983). *Once upon a time: Using stories in the language classroom*. Cambridge: Cambridge University Press.
4. Wright, A. (1989). *Pictures for Language Learning*. Cambridge: Cambridge University Press.

Advanced Readings

1. Parrot M. (1993). *Tasks for language teachers* Cambridge: Cambridge University Press
2. Richards, J. & Lockhart, C. (1994). *Reflective Teaching in Second Language Classrooms*. Cambridge: Cambridge University Press
3. Slatterly, M. & Willis, J. (2001). *English for primary teachers: A handbook of activities & classroom language*. Oxford: Oxford University Press

Second Semester

CC 1: Learning & Teaching

Aims of the Course

- To become aware of different contexts of learning and situate schools as a special environment for learning;
- To reflect on their own implicit understanding of the nature and kinds of learning;
- Gain an understanding of different theoretical perspectives on learning with a focus on cognitive views of learning as well as social– constructivist theories;
- Explore the possibilities of an understanding of processes in human cognition and meaning–making them as basis for designing learning environments and experiences at school; and
- Appreciate the critical role of learner’s based on differences and contexts in making meanings, and hence draw out implications for schools and teachers.

UNIT 1: THEORETICAL PERSPECTIVES ON LEARNING

- Implicit knowledge and beliefs about learning (demystifying misconceptions).
- Perspectives on human learning: Behaviourist (conditioning paradigm in brief), cognitivist, information-processing view, humanist, social-constructivist (drawing selectively on the ideas of Skinner, Piaget, Rogers, Vygotsky).
- Concepts and principles of each perspective and their applicability in different learning situations.

UNIT 2: ROLE OF LEARNER IN LEARNING

- Role of learner in various learning situations, as seen in different theoretical perspectives
- Role of teacher in teaching-learning situations: a) transmitter of knowledge, b) model, c) facilitator, d) negotiator, e) co-learner. (The focus is on building understanding of different psychological perspectives of learning and helping student teachers to learn to apply them in different learning situations).
- Distinctions between learning as 'construction of knowledge' and learning as 'transmission and reception of knowledge'.

UNIT 3: LEARNING IN 'CONSTRUCTIVIST' PERSPECTIVE

- Social-constructivist perspective (also Bruner and Ausubel's perspective) and applications of Vygotsky's ideas in teaching.
- Understanding processes that facilitate 'construction of knowledge' :
 - (i) Experiential learning and reflection
 - (ii) Social mediation
 - (iii) Cognitive negotiability
 - (iv) Situated learning and cognitive apprenticeship
 - (v) Meta-cognition.

- Creating facilitative learning environments, teachers' attitudes, expectations – enhancing motivation, positive emotions, self-efficacy, collaborative and self regulated learning. (The focus is on learning as a constructive rather than a reproductive process. The learner- centered orientation has implications for understanding learning as contextual and self-regulated process and following suitable classroom practices).

UNIT 4: INDIVIDUAL DIFFERENCES AMONG LEARNERS

- Dimensions of differences in psychological attributes—cognitive abilities, interest, aptitude, creativity, personality, values.
- Understanding learners from multiple intelligences perspective with a focus on Gardner's theory of multiple intelligences. Implications for teaching-learning in the light of changing concept of intelligence, including emotional intelligence.
- Differences in learners based on predominant 'learning styles'.
- Differences in learners based on socio-cultural contexts: Impact of home languages of learners' and language of instruction, impact of differential 'cultural capital' of learners.
- Understanding differences based on a range of cognitive abilities— learning difficulties, slow learners and dyslexics, intellectual deficiency, intellectual giftedness. Implications for catering to individual variations in view of 'difference' rather than 'deficit' perspective.(The focus is on understanding the differential learning needs of the learners with regard to abilities, learning styles, language, socio-cultural differences/disadvantage, learning difficulties, and their implications for classroom practices and teaching)

References

- 📖 Aggarwal, J.C. *Essential of Educational Psychology*, Vikas Publishers, Delhi, 1998
- 📖 Aggarwal, J.C. *Essential of Educational Psychology*, Vikas Publishing House, New Delhi, 1994.
- 📖 Bhargava, Mahesh, *Introduction of Exceptional Children*, Sterling Publishers, New Delhi, 1994.
- 📖 Bhatia, H.R., *A Text Book of Educational Psychology*, Delhi: McMillan Co., New Delhi, 1977
- 📖 Bhatia, K.K. *Educational Psychology and Techniques for Teaching*, Kalyani Publishers, Ludhiana, 1994.
- 📖 Chauhan, S.S. *Advanced Educational Psychology*, Vikas Publishing New Delhi, 1996
- 📖 Dandapani, S., *Advanced Educational Psychology*. New Delhi. Anmol Publications Pvt. Ltd., 2000
- 📖 DeCecco, John P., *Psychology of Learning and Instruction*, Prentice Hall, New Delhi, 1987.
- 📖 Drescoll, Mercy P.M *Psychology of Learning for Instruction*, Allyn and Bacons, USA, 1993
- 📖 Eshwar, H.S. and Nataraj P., *Shaikshanika Manovijnana, Parichaya: Bhaga I and II, Institute of Kannada Studies*, Union of Mysore, Mysore, 1985
- 📖 Gagne, R.M. *Conditions of Learning and Theory of Instruction*, 4th Edition, Holt Rinehart and Winston, New York, 1977
- 📖 Ghangadharappa, N.R. *Shaikshanika Manovijnana*, Rekha Pradhsna, Davengere, 1996

- 📖 Goleman, Daniel, *Emotional Intelligence*. New York: Bantam, 1995
- 📖 Govinda Rao., A.V. *Shikshandalli Manovijnana*, Vidyanidhi Pradshana, Gadaga, 1996
- 📖 Kar, Chintamani, *Exceptional Children*, Sterling Publishers, New Delhi, 1992
- 📖 Kundu, C.L. and Tutoo, D.N., *Educational Psychology*, Sterling Publishers, New Delhi, 1980.
- 📖 Kundu, V.L and Totoo, D.N., *Educational Psychology*, Sterling Publishers, New Delhi.
- 📖 Lingren, H.C., *Educational Psychology in the Classroom*, 6th Ed., Oxford University Press, New Delhi, 1980
- 📖 Mangal, S.K. *Advanced Educational Psychology*, Prentice Hall of India. Pvt. Ltd., 1999
- 📖 Mathur, S.S., *Educational Psychology*, 9th Ed., Vinod Pustak Mandir, Agra, 1981
- 📖 Raul, Lizy T., (1998) *Educational Psychology*, CMC Mary Matha, Kerala.
- 📖 Sharma, R.N. *Educational Psychology and Guidance*, Vikas Publishers, New Delhi, 1998
- 📖 Shivashankara H.V. and Basakumar P., *Shaikshanika Manovijnana*, Hanji Prakashana Davangere, 1977
- 📖 Skinner, C.E. (Ed) *Educational Psychology*, 4th Ed., Prentice Hall of India Pvt., Ltd., New Delhi, 1996
- 📖 Walia, J.S. *Foundation of Educational Psychology*, Paul Publishers, Jalandhar, 2001.
- 📖 Walia, J.S. *Foundations of Educational Psychology*, Paul Publishers Jalandhar, Punjab, 1999
- 📖 Yelon, S.L. and Weinstein, G.W., *A Teacher's World: Psychology in the Classroom*, McGraw Hill Co., Tokyo, 1977.

CC 4. Language across the curriculum – Part 2

Objectives

- It is also intended that the student teachers will develop a taste for and abilities in reading and making meaning of different kinds of texts.
- They will also learn to engage with ideas and appreciate that different kinds of writing are used to communicate these ideas in different contexts.
- Overall, areas of language proficiency which are emphasised are those that will lay a foundation for their becoming self-learners, reflective and expressive teachers, and collaborative professionals.

UNIT 1: ENGAGING WITH SUBJECT-RELATED REFERENCE BOOKS

For this Unit, the student-teachers should work in groups divided according to their subjects. Within these groups, pairs of student-teachers would make a choice of a specific topic in their subject area which they could research from a set of available reference books. The focus of this Unit is, as much the learning of effective processes of reference research and its presentation, as the actual reading of the reference books themselves.

Sequence of Activities

- Selecting the topic for research and articulating some guiding questions
- Searching and locating relevant reference books (could be from a school library or the institute library)
- Scanning, skimming and extracting relevant information from the books by making notes
 - Collating notes and organising information under various sub- headings
 - Planning a presentation – with display and oral components
 - Making presentations to whole subject group, fielding questions.

UNIT 2: ENGAGING WITH EDUCATIONAL WRITING

Selected texts could be drawn from the wide range of popular educational writing in the form of well-written essays, extracts or chapters from authors who deal with themes from education, schooling, teaching or learning. The writings selected should present a definite point of view or argument about some aspects of the above themes. Student-teachers can be grouped randomly for this Unit.

Suggested Activities

- Reading for discerning the theme(s) and argument of the essay (guided reading-individually or in pairs)
- Analysing the structure of the argument—identifying main ideas, understanding topic sentences of paragraphs, supporting ideas and examples, terms used as

connectors and transitions (guided small group discussion)

- Discussion of the theme, sharing responses and point(s) of view (small group discussion)
- Writing a response paper (individually or in pairs)
- Presentations of selected papers, questions and answers (large group)

CC 2. Pedagogy of a School Subject – Part 1

Semester- II

Content cum Methodology of Teaching Physics

Learning Objectives

40 hours

1. To acquire the Knowledge of the content of Physics operating at secondary and sr. secondary school level
2. To understand the nature and scope of physics
3. To understand the Aims and objectives of teaching physics
4. To develop the skill to prepare unit plan and lesson plan
5. To develop an understanding of various approaches and methods of teaching physics
6. To understand the principles of curriculum construction.
7. To organize science club and other co-curricular Activities
8. To develop teaching aids.
9. To understand instructional support system in physics – Laboratory planetarium physics museum etc.
10. To understand the difference between comprehensive and continuous evaluation.
11. To develop the skill in construction administration and Interpretation of unit test.

Unit-1- Physics syllabus at sr. secondary level

(Level of knowledge-conceptual and working knowledge)

1. Knowledge of one, two, three dimensional motion and examples from daily life. Projectile motion and its examples.
2. Newton's law of motion and its examples from day to day life momentum, centripetal force, centrifugal force and its examples.
3. Work, power, energy definitions and their units, law of conservation of energy, transfer of potential Energy of a freely falling body.
4. The universal law of gravitation Acceleration due to gravity change in its value with change in longitude altitude, depth, height, mass and density of the earth. Kepler's law of planetary motion.
5. Elasticity and plasticity in solids stress strain, elastic limit, Hooks law, concepts of young's coefficient of elasticity.
6. Surface tension, angle of contact, application of surface tension. ideas in capillary rise, formation of bubbles and drops.

7. Transfer of heat – conduction convection and radiation, specific heat of solid, latent heat
8. Periodic motion: simple harmonic motion and its characteristics .Wave motion– wave propagation, transverse and longitudinal waves.

Unit-2- Enrichment content.

(Level of knowledge-conceptual and working knowledge)

1. Unit charge electric field due to point charge, electric dipole physical meaning of potential difference.
2. Resistance, Drift concept mobility, ohm’s law and its limitations specific resistance combination of resistance, Kirchoff’s law.
Application of Wheatstone bridge to measure specific resistance by Meter Bridge
1. Concept of magnetic field, orested experiment. Coulomb’s inverse square law, unit pole magnetic dipole, dipole moment.
2. Magnetic flux its dimensional formula farady’s law of electromagnetic induction, Lenz’s law.
3. Wave optics – wave and particle nature of light, general idea of interference Diffraction and polarization of light.
4. Reflection, refraction, total internal reflection and its example(basic concepts)
5. Dispersion, irregular dispersion, Human eye, its defects and their remedy, simple and compound microscope (Ray diagram)
6. Solids and semiconductor, devices- P-N-Junction diode, Junction Transistor (Basic concepts only)
7. General idea of logic gate (OR,AND,NOT,NAND,NOR)

Unit-3 –

A. Introduction and objectives of teaching physics

(Level of knowledge-conceptual and basic knowledge)

1. Nature and scope of physics.
2. Biography, Contribution and work of major Indian physicists and also other Nobel laureates
(Antoine Henri Becquerel, Pierre Curie-Maria Curie, Max Planck, Albert Einstein, Niels Bohr, Chandra sekhar Venkataraman, James Chadwick, François Englert-Peter Higgs)
3. Aims objectives and values of physics teaching.
4. Classification of educational objectives with reference to Blooms-Taxonomy.

B. Physics curriculum and co-curricular Activities

1. Definition of curriculum, Principle of developing physics curriculum, important projects of physics curriculum.

2. Meaning, Objectives and importance of science club, science fair and exhibition, science museums ,science Quiz and field trips.

Unit-4

(Level of knowledge-conceptual basic, working knowledge)

A. Instructional support system in physics.

1. Importance, use and classification of teaching aid with special reference to new technologies like interactive TV, compute, power point, use of Internet. (Audio, Visual Audio Visual Aids) laboratory (Need and importance and its maintenance)
2. Community Resources – planetarium, Physics museum.

B. Methods and Approaches of teaching Physics.

1. Methods- Lecture cum demonstration, Heuristic, Laboratory, problem solving, Project method.
2. Approaches – Inductive, deductive, critical, enquiry Approach's.

Unit-5-

(Level of knowledge-conceptual basic, working knowledge)

A. Effective planning for teaching physics.

1. Importance of planning.
2. Unit planning – characteristics of a good unit plan.
3. Lesson planning –steps in lesson planning (Herbart ion steps) preparing. Designing lesson plan, formation of lesson plan
4. Distinguishing Lesson plan and unit plan. Innovation in teaching physics, seminar, Presentation, Micro teaching and group discussion.

B.Evaluation in teaching Physics.

1. Comprehensive and continuous evaluations in context of NCF 05
2. Need and importance of class test.
3. Different type of test– essay, short answer, objectives.
4. Blue Print.
5. Achievement test- its construction administration and items analysis Reliability and Validity of a test.

ASSINGMENT

- Power Point Presentation.
- Organizing Science Quiz, Science Seminar.
- Construction of Teaching Aids.
- Organizing aPhysics Laboratory.
- Construction of a Science Club.

References

- 📖 Ahmed, Shaikti R. (1983) *Management of Laboratory Science Programme: Report of Orientation Programme in Educational Planning and Administration*, New Delhi; NIEPA Mimeo.
- 📖 Bhandula & Chand (1986) *Teaching of Science*, Prakash Brothers, Ludhina
- 📖 Bose, A. H. Sood, J.K. and Vaidya, N. (1970), *Strategies in Science Education*. Regional Institute of Education, Ajmer.
- 📖 Carin/Sund *Teaching Science Through Discovery*; C.E. Merrill Publishing Co. London.
- 📖 Cleaveland J. M. (1964) *Physical Science* C.E. Merrill Publishing Co., Ohio.
- 📖 Craig (1958) *Science for the Elementary School Teacher*; Ginn & Co., New York
- 📖 Das R. C. (1985) *Science Teaching in Schools*, Sterling Publishers, Pvt. Ltd., New Delhi.
- 📖 Fensham P. J. et al.,(1994) *The Content of Science : A Constructive Approach to its Teaching & Learning*. The Falmer Press, Washington D.C.
- 📖 Gupta S. K. (1983) *Technology of Science Education*, Vikas Publishing House, Pvt. Ltd., New Delhi.
- 📖 Gupta S. K. (1985) *Physical Science Teaching in Secondary Schools*, Sterling Publishers, Pvt. Ltd., New Delhi.
- 📖 Jacobson, David et al., (1985) *Methods for Teaching: A Skills Approach*. Charles, E Merrill Publishing Co., Columbus.
- 📖 Jennings Terry (1987) *The Young Scientist Investigator : The Teacher Manual* of Oxford University Press.
- 📖 Joseph-Bradwin, et al. (1998) , *Sourcebook for Physical Science*. Brandwain-Watson-Blackwood
- 📖 Kalara R. M. (1981), *Innovation in Science Teaching*; Prakashan Kendra, Lucknow.
- 📖 Kohli V. K. (2003) *How to Teach Science* (A Treatise on Methodology of Teaching Physics and

Chemistry) Viveka Publishers, Ambala.

- 📖 Mangal, S.K. (1995); *Teaching of Physical and Life Science*, Avg. Book Depot. : Delhi.
- 📖 Nagel E. (1961) *The Structure of Science*, Harcourt Brace and World Inc., New York
- 📖 Nair C. P.S., (1971) *Teaching Science in Our Schools*. S. Chand & Co., New Delhi.
- 📖 Schwab J. J. and Bradwein P.F. (1962) *The Teaching of Science*, Marks, Harvard University Press, Cambridge.
- 📖 Sharma, R.C. (1995); *Modern Science Teaching*, Dhanpat Rai & Sons, Delhi .
- 📖 Siddiqi M.N. and Yadav R.A. (1995) *Teaching of Science at Elementary Level, Part - I & Part - II*, Arya Book Depot : New Delhi.
- 📖 Siddiqi N. N. & Siddiqi M.N. (1994) *Teaching of Science Today and Tomorrow*, Doaba House, Delhi - 110 006.
- 📖 Sood S. K. (1988) *New Direction in Science Teaching*, Indian Publishers, Delhi.
- 📖 *The Importance of Art Activities for Science Teaching : A Hand Book for Teacher (1984)* Published by Centre for Cultural Resources and Training, Bahawalpur House, New Delhi.
- 📖 UNESCO (1985) *Teaching School Chemistry*, Sterling Publishers Pvt. Ltd., New Delhi.
- 📖 UNESCO,(1978) *New UNESCO Source Book's for Science Teaching*, New Delhi; Oxford and IBH Publishing Co.,
- 📖 Waiter A Thurkar and Alferd T. Collette (1964) *Teaching Science in Today's Secondary Schools*, New Delhi, Prentice Hall
- 📖 NCERT (2005) focus group report teaching of science NCERT New Delhi.
- 📖 NCERT National Curriculum framework 2005 NCERT New Delhi.
- 📖 Rathore Dr. Mudit (2007) *Teaching of Physics* (Shiksha Prakashan Jaipur

CC 2. Pedagogy of a School Subject – Part 1

Semester- II

CONTENT CUM METHODOLOGY OF TEACHING CHEMISTRY

Learning objectives

40 Hours

1. To understand the nature and scope of Chemistry.
2. To understand the Aims and objectives of teaching Chemistry.
3. To acquire the knowledge of the Conceptual and enrichment content of Chemistry operating at secondary and sr. secondary school level.
4. To understand the principle of curriculum construction.
5. To organizes science club and other co-curricular Activation.
6. To develop teaching aids.
7. To understand instructional support system in Chemistry plan atrium Chemistry museum etc.
8. To understand the difference between comprehensive and continuous evaluation.
9. To develop the skill in construction administration and Interpretation of unit test.
10. To develop the skill to prepare unit plan and lesson plan
11. To develop an understanding of various approaches and methods of teaching Chemistry.

UNIT-1-

Conceptual and enrichment contents of secondary and senior secondary level-

- **Atomic Structure** : Bohr's Model, Modern concept – Orbit & orbital, Quantum numbers, Shape of s, p, d orbital, Rules of Electron filling in orbital's.
- **Chemical Bonding** : Ionic, Covalent & Co-ordinate bonding, Polarity in Covalent bond, H-Bond, VSEPR Theory, Hybridization, Hydrogen bonding.
- **Organic Compounds**: Classification of Hydrocarbon IUPAC nomenclature of organic compound.
- **Periodicity of Elements**: Mendeleev's & Modern Periodic table, Periodic property & their periodicity.

- **Analytical Chemistry:** Theory of ionization, Le-chatelier's principle common ion effect, solubility product, concept of pH, buffer solution and applications of these concepts in everyday life.

Unit – 2 –

Nature and Significance of Teaching Chemistry.

- Meaning, nature and scope of Chemistry.
- Significance of Teaching Chemistry in Secondary and Senior Secondary classes.
- Instructional objectives : General and specific objective of Teaching Chemistry.
- Classification of Educational objectives with reference to Bloom's Taxonomy
- Historical Development of Chemistry.
- Biography Alfred Nobel.
- History and work of Nobel Laureates : *Svante August Arrhenius, Ernest Rutherford, Alfred Werner, Maria Sklodowska Curie, Fritz Haber, Otto Hahn, Linus Carl Pauling, Melvin Calvin, Paul Berg, Richard F. Heck.*

Unit -3-

Planning of Lesson and Methods of Teaching Chemistry.

A. Effective Planning for Teaching Chemistry

- Unit Planning, Lesson Planning and its characteristics.
- Theory Lesson Plan and Practical Lesson Plan.
- Micro Teaching.
- Innovation and Teaching Chemistry.

B. Methods and approaches of Teaching Chemistry.

- Methods : Lecture – cum – Demonstration, Heuristic, Problem solving, Project methods.
- Approaches : Inductive, Deductive, Learner Centered, Enquiry approaches.

C. Role of Information Technology and Audio – Visual aids.

- Use of Audio – Visual aids with emphasis on Demonstration in Chemistry.

- Use of Smart Class, Visualizer, Projectors.
- Computer Assisted Learning in Chemistry.

Unit -4-

Chemistry curriculum and Co – curricular activities.

A. Chemistry curriculum

- Place of Chemistry in school curriculum.
- Chemistry as a component of Integrated Science at secondary level.
- Principle of constructing a Chemistry curriculum.
- Text Book, Reference Book in Chemistry.

B. Co – curricular activity and Professional Growth of a Chemistry Teacher.

- Planning of Chemistry laboratory.
- Competencies associated with Laboratory Techniques.
- Organization of Science Quiz, Science Exhibition, Science Seminar, Workshop on Low Cost Teaching Aids, Chemistry Olympiad (At school level).
- Meaning objectives and importance of Mobile Chemistry Lab, Regional Science Center, National Science Museum, Vigyan Manthan Yatra, National Science Drama, National Chemical Laboratory.

Unit -5-

Evaluation in Chemistry Teaching

- Concept of Evaluation.
- Preparation, Construction, Administration and comparison of Achievement Test and Diagnostic Test.
- Criteria of a good Achievement Test.
- Item Analysis, Reliability and validity of a Test.
- Comprehensive and Continuous Evaluation (CCE) in context of NCF 2005.
- Blue Print.

ASSINGMENT

- Powerpoint presentation.
- Organizing Science Quiz, Science Seminar.
- Construction of Teaching Aids.
- Organizing a Chemistry Laboratory.
- Construction of a Chemistry Kit.
- Construction of a Science Club.

Reference :

- 📖 Kalara R. M. (1981), *Innovation in Science Teaching*; Prakashan Kendra, Lucknow.
- 📖 Kohli V. K. (2003) *How to Teach Science (A Treatise on Methodology of Teaching Physics and Chemistry)* Viveka Publishers, Ambala.
- 📖 Nagel E. (1961) *The Structure of Science*, Harcourt Brace and World Inc., New York
- 📖 Nair C. P.S., (1971) *Teaching Science in Our Schools*. S. Chand & Co., New Delhi.
- 📖 Sharma, R.C. (1995); *Modern Science Teaching*, Dhanpat Rai & Sons, Delhi .
- 📖 Siddiqi N. N. & Siddiqi M.N. (1994) *Teaching of Science Today and Tomorrow*, Doaba House, Delhi - 110 006.
- 📖 Sood S. K. (1988) *New Direction in Science Teaching*, Indian Publishers, Delhi.
- 📖 UNESCO (1985) *Teaching School Chemistry*, Sterling Publishers Pvt. Ltd., New Delhi.
- 📖 UNESCO,(1978) *New UNESCO Source Book's for Science Teaching*, New Delhi; Oxford and IBH Publishing Co.,
- 📖 Narendra Vaidya (1971) *The Impact of Science Teaching*, Oxford and IBH Pub.Co. New Delhi.
- 📖 Rathore, Dr. Mudit (2005) *Adhunik Rasayan Vigyan Shikshan*, Shiksha Prakashan, Jaipur
- 📖 Saxena Dr. K.K. (2007) *Adhunik Rasayan Vigyan Shikshan*, University Book House, Jabalpur.
- 📖 Yadav, M.S. (1995) *Teaching of Chemistry*, Anmol Publication Pvt. Ltd, New Delhi.
- 📖 Singh P.P. & Kalla V.D. (2005) *Teaching of Chemistry*, Deep & Deep Publication, Pvt. New Delhi.
- 📖 Sharma, Dr. B.L. & Saxena Dr. V.S. (2000), *Rasayan Vigyan Shikshan* R. Lal Book Depot, Merut.

CC 2. Pedagogy of a School Subject – Part 2

Semester – II

CONTENT CUM METHODOLOGY OF TEACHING BIOLOGY

40 Hours

Learnig Objectives

Upon completion of the course, the student-teachers will be able to:

1. To acquaint the learner with the Methodology of Biology Teaching.
2. To understand the nature and scope of Biology.
3. To understand the Aims and Objectives of teaching Biology.
4. To understand instructional support system in biology. – Laboratory
5. To develop teaching aids.
6. To understand Evaluation in Biology.
7. To organize Biology club and other co-curricular activities.

Unit-I-

(A)- Nature and Importance of Biology.

- Utility of life science in our present life.
- Importance of Biology in curriculum.
- Co-relation of Biology with other subject.

(B)- Behavioural Objectives of Biology Teaching.

1. Meaning of aims and objectives.
2. Difference between aims and objectives.
3. Need of educational objectives.
4. Behavioral objectives of Biology Teaching
5. Bloom Taxonomy.
6. Instructional objective of Biology Teaching

(C)- Teaching methods of Biology.

1. Experiment Demonstration Method.
2. Problem Solving Method.
3. Laboratory Method.
4. Heuristic Method.
5. Project Method.

(D) Teaching aids in Biology.

1. Need of Teaching Aids.
2. Objectives of Teaching Aids in Biology.
3. Classification of Audio Visual Aids. Useful Audio-Visual Aids for Biology.
4. Improvised apparatus and their uses.
5. Latest teaching equipments in Biology.

Unit-II-

(A) Lesson Planning for Teaching of Biology.

1. Meaning of Lesson Planning .
2. Characteristics of effective Lesson Planning.
3. Need of Lesson Planning .
4. Advantages of Lesson Planning.
5. Precautions in preparing Lesson Planning .
6. Formation of lesson plan.

(B) Co-curricular activities in Biology.

1. Biology club, Field trip, Biology fair, Biology hobbies.
2. Study of Famous scientist and their contribution in biology- Birbal Sahani, Jagdish Chandra Bose, Joseph Lister, Claude Bernard, Har Govind Khorana, Richard Dawkings, Creig Venter
3. Study of Noble prize winner – Ronald Ross, Otto Fritz Meyerhof, Frederick Grant Banting and John James Rickard Macleod, Willem Einthoven, Thomas Hunt Morgan

(C) Biology laboratory.

1. Need of laboratory in Biology.
2. Organization of laboratory.
3. Suggestions for the organization of laboratory.

(D) Evaluation in Biology.

1. Need of evaluation.

2. Meaning of evaluation.
3. Educational process of evaluation.
4. Importance of evaluation.

Unit -III-

(A) Cell and cell structure

- Prokaryotic and Eukaryotic cell
- Ultra structure of a cell
- Difference between Plant and Animal cell.
- Structure of chromosome and DNA.

(B) Tissues

1. Simple Plant tissues Parenchyma, collenchyma, sclerenchyma tissues.
2. Complex plant tissues – Phloem, Xylem
3. Stomata.
4. Animal tissues – Epithelial, Muscular, Connective, Nervous tissues.

(C) Ecological adaptation.

1. Habitat- land ,water,air as habitat.
2. Adaptation in plants – Xerophytes, Hydrophytes, Mesophytes,
3. Adaptation in animals- Terrestrial, Aquatic, Aerial.

(D) Ecosystem.

1. Types of ecosystem .
2. Components of ecosystem.
3. Food chain and food webs.
4. Ecological pyramids.
5. Carbon cycle.
6. Nitrogen cycle.

Unit-IV-

(A) Diversity of living world.

1. Nomenclature.
2. Importance of classification.
3. Classification systems.
4. Two kingdom system of classification.
5. Five kingdom system of classification.

(B) Classification.

- Classification of Plants
- Classification of Animals.

(C) Heredity and variations.

1. Mendel's experiments and hybridization method.
2. Mendelian law.
3. Importance of Mendelism.

Unit-V-

(A) Flower – structure and functions.

1. Parts of a typical flower, symmetry of flowers.
2. Insertion of floral leaves.
3. Bracts, Calyx, Corolla, Perianth, Aestivation.
4. Androecium- Parts of androecium, Insertion of anther, Cohesion of stamens.
5. Gynoecium- Parts of carpel, Types of carpel, Types of ovary Placentation .
6. Formation of floral formula and floral diagrams.

(B) Plant Physiology.

Plant water relation

7. Water absorption
8. Ascent of sap
9. Root pressure
10. Transpiration

(C) Human Physiology.

11. Digestion
12. Respiration
13. Circulation
14. Excretion
15. Harmonal Control and co-ordination

(D) Latest Developments.

16. Cyborg, Cybernetic, Cryonics, Clone, Artificial Child (Designer Baby), Bush Robot, Super Human Robot, Futurology, Nano Engineered, or non biodegradable, Transgenic Crops, Bionenoboat.

ASSINGMENT

- Power Point Presentation.
- Organizing Science Quiz, Science Seminar.
- Construction of Teaching Aids.
- Organizing a Biology Laboratory.
- Construction of a Science Club.

References

- 📖 Buffaloe, N.D. Throneberry (1969) - *Principles of Biology*, Prentice Hall of India, New Delhi.
- 📖 Chikkara & Sharma (1989) *Teaching of Biology*, Prakash Bros. Ludhiyana.
- 📖 Green T.L. (1965) - *Teaching of Biology in Tropical Secondary Schools*, Oxford University Press, London.
- 📖 Guddalli NM (1993) - *Vignana Bhoodane*, Bharat Book Dept. Dharwad.
- 📖 Mangal S.K., (1997) *Teaching of Physical & Life Sciences* Avg. Book Depot. New Delhi.
- 📖 Miller & Blaydes (1962) - *Methods & Materials for teaching of Biological Science*, Tata Mc.Grahill Pub. Co - New Delhi.
- 📖 Narendra Vaidya (1971) *The Impact of Science Teaching*, Oxford and IBH Pub.Co. New Delhi.
- 📖 NCERT (1982) *Teaching of Science in Secondary Schools*, New Delhi.
- 📖 Patil S. S & Rakkasagi (1998) - *Jeeva Vignana Bhoodane*, Vidyanidhi Prakashan, Gadag.
- 📖 Sharma L.N. (1977) *Teaching of Life Science*, Dhanpat Rai & Sons, New Delhi.
- 📖 Sivashankar H.V., and Basavakumaiah, P. (1987) - *Vignana Bhoodane*, Hanji Prakashan, Davangere.
- 📖 Sood J.K. (1987) *Teaching of Life Sciences*, Kohli Pub. Chandigarh.
- 📖 Thurber & Colletta (1964) *Teaching of Science in Today's Secondary School*, Prentice Hall Pvt. Ltd, New Delhi
- 📖 UNESCO (1978) - *New Source book of Science Teaching*, Oxford & BH Pub. Co. Ltd., New Delhi.
- 📖 Yadav K. (1995)- *Teaching of Life Sciences*, Anmol Pub. New Delhi.

CC 2. Pedagogy of a School Subject – Part 2

Semester – II

CONTENT CUM METHODOLOGY OF TEACHING MATHEMATICS

40 Hours

Learning Objectives:

1. To acquire the Knowledge of the content of mathematics operating at secondary and sr. secondary school level
2. To understand the nature and scope of mathematics.
3. To understand the Aims and objectives of teaching mathematics.
4. To develop the skill to prepare unit plan and lesson plan
5. To develop an understanding of various approaches and methods of teaching mathematics.
6. To understand the principle of curriculum construction.
7. To organizes co-curricular Activation.
8. To develop teaching aids.
9. To understand instructional support system in mathematic– (Laboratory & develop the various techniques for teaching mathematics.
10. To understand the difference between comprehensive and continuo's evaluation.

UNIT-1

- i) Definition and examples of group, cyclic group Permutation and Isomorphic group, Addition and multiplication of matrices, inverse of matrices, Application of matrices to solve simultaneous equations.
- ii) Problems of finding volumes areas and surface of combinations of right circular cone, cylinder, hemisphere and sphere, Frustum of cone problems involving converting one type of metallic solid into another and related problems.

UNIT-2

i) Function limit and continuity, Differentiation of function, Integration by parts by substitution, Definite integrals, Theory of quadratic equations, Application of quadratic equation in solving word problem from different areas.

ii) Pair of straight lines homogeneous equation, second degree in two variables, Equation to the bisectors of angles between one pair straight lines, equation of straight lines passing through. Origin and points of intersection of curve and a line.

UNIT-3

- i) History of Mathematics- and Meaning, nature, importance and place of mathematic in curriculum:
- ii) Contribution of Great mathematicians: Bhaskaracharya, Aryabhata, Shri Dharacharya, Ramanujan, Pythagoras, Euclid.
- iii) Aims of teaching mathematics: - (1) Utilitarian (2) Social & Cultural (3) Disciplinary, Correlation of mathematics and other school subject, Role of mathematics laboratory and classroom.

UNIT-4

Blooms classification of educational objectives of teaching mathematics in terms of instruction and behaviour, Approaches to teaching mathematics viz inductive, deductive analytical, synthetic, Heuristic, Project and laboratory, Using various techniques for teaching mathematics, viz. oral and drill assignment supervised study, and Programmed learning and problems solving method.

UNIT-5

i) Meaning and importance/purpose of lesson plan, Performa of lesson plan and its rationality. Meaning and purpose of a yearly plan. Modern trends in mathematics project such a SMSG.

ii) Essay, short answer and objective type examination in mathematics, Achievement and Diagnostic test in Mathematics. Blue print, Teaching aids in mathematics, model chart, TV films .Video tapes and VCR, work book.

iii) Quality of a good Text book in mathematics. Curriculum construction for secondary stage.

ASSINGMENT

- Power Point Presentation.
- Organizing Science Quiz, Science Seminar.
- Construction of Teaching Aids.
- Construction of a Science Club.

References

- 📖 Butler and Wren (1960) *The Teaching of Secondary Mathematics*, Tokyo; McGraw Hill Book Company.
- 📖 Henderson, K. et al (1975) *Dynamics of Teaching Secondary Mathematics*, London Houghton Mifflin.
- 📖 Howard Eves, *An Introduction to the History of Mathematics*.
- 📖 Jantli, R. T. (2000) *Subodha Ganitha Bodhane*, Vidhyanidhi Prakashan, Gadag.
- 📖 Krulik and Weise (1975). *Teaching Secondary School Mathematics*. London W.B. Saunders.
- 📖 Kuppuswamy Ayyangar, N. (1988) *The Teaching of Mathematics in New Education*, Bangalore.
- 📖 Mangal, S. K. (1989) *Teaching of mathematics*. Ludhiana: Prakash Brothers Publishers.

- 📖 Sidhu, K. S. *Teaching of Mathematics*, B'lore Sterling Publishers.
- 📖 Wren (1973). *Basic Mathematical concepts*, New York, McGraw Hill.
- 📖 Yadawad S. B. and Rabanal R.T., (2000) *Vishayadharit Ganit Bodhane*, Vidyanidhi Prakashan, Gadag.
- 📖 Kulshreshtra, Arun Kumar (2007) *teaching of Mathematic*, R.Lal Book Dipo Meerut 250001
- 📖 Kumar Sudhir and Ratnalikar (2006-07) *teaching of Mathematic*, Anmol Publication Pvt. Ltd. New Delhi 110002 (India)

EPC 2: DRAMA AND ART IN EDUCATION

Introduction

The need to integrate arts education in the formal schooling of our students is to retain our unique cultural identity in all its diversity and richness and encourage young students and creative minds to do the arts. An understanding of the arts will give our youth the ability to appreciate the richness and variety of artistic traditions as well as make them liberal, creative thinkers and good citizens of the Nation. Keeping in view some of these ideas, the National Curriculum Framework-2005, introduced arts education as a mainstream curricular area, which must be taught in every school as a compulsory subject (up to Class X) and facilities for the same may be provided in every school. Keeping this in view, it is all the more important that arts education is integrated in the school curriculum to provide an aesthetically viable atmosphere in schools encouraging creativity. For this, not only Art teachers but every teacher in the school system should be sensitized to understand and experience the use of Arts for holistic development of the learner, as a teacher as well as an individual.

OBJECTIVES

- Understanding basics of different Art forms – impact of Art forms on the human mind
- Enhance artistic and aesthetic sensibility among learners to enable them to respond to the beauty in different Art forms, through genuine exploration, experience and free expression
- Enhance skills for integrating different Art forms across school curriculum at secondary level
- Enhance awareness of the rich cultural heritage, artists and artisans.

COURSE CONTENT

UNIT 1: VISUAL ARTS AND CRAFTS (PRACTICAL)

- Experimentation with different materials of Visual Art, such as pastel, poster, pen and ink, rangoli materials, clay, etc.
- Exploration and experimentation with different methods of Visual Arts like Painting, block printing, collage, clay modelling, paper cutting and folding, etc.
- Paper framing and display of Art works.

UNIT 2: PERFORMING ARTS: DANCE, MUSIC, THEATRE AND PUPPETRY (PRACTICAL)

- Listening/viewing and exploring Regional Art forms of music, dance, theatre and puppetry.
- Viewing/listening to live and recorded performances of Classical and Regional Art forms
- Participation and performance in any one of the Regional Arts forms keeping in mind the integrated approach
- Planning a stage-setting for a performance/presentation by the student-teacher.

UNIT 3: APPRECIATION OF ARTS

- Meaning and concepts of Arts and aesthetics and its significance at secondary level of school education
- What is the difference between Education in Arts and Arts in Education
- Identification of different performing Art forms and artists ; dance, music and musical instrument, theatre, puppetry, etc. (based on a set of slides, selected for the purpose)
- Knowledge of Indian Craft Traditions and its relevance in education (based on a set of slides, selected for the purpose)
- Knowledge of Indian Contemporary Arts and Artists; Visual Arts (based on a set of slides, selected for the purpose)
- Indian festivals and its artistic significance.

Project Work (Units 1 and 2)

Theme-based projects from any one of the curricular areas covering its social, economic, cultural and scientific aspects integrating various Arts and Craft forms; Textbook analysis to find scope to integrate Art forms either in the text or activities or exercises; Documentation of the processes of any one Art or Craft form with the pedagogical basis such as weaving or printing of textiles, making of musical instruments, folk performances in the community, etc. – how the artist design their products, manage their resources, including raw materials, its marketing, problems they face, to make them aware of these aspects of historical, social, economic, scientific and environmental concerns. Student-teacher should prepare at least ten lesson plans in their respective streams of subjects (Science/Maths / Social Sciences/Languages etc.) while integrating different art forms.

Workshop

Two workshops of half a day each, of one week duration for working with artists/artisans to learn basics of Arts and Crafts and understand its pedagogical significance. The Arts forms learnt during the course should be relevant to the student-teachers in their profession. Activities, such as drawing, and painting, rangoli, clay modelling, pottery, mixed collage, woodcraft, toy making, theatre, puppetry, dance, music, etc. region specific should be given more importance for making arts learner-centred. The focus of the workshops should be on how art forms can be used as tool/method of teaching-learning of Languages, Social Sciences, Mathematics and Sciences.

PRACTICAL PART

1. **BODY MOVEMENT-** Different theatre games, Exercises, Martial Arts, Folk Dances.
2. **MEDITATION-** Focus, Concentration.
3. **SCRIPT WRITING-** characterization, dialogue, time and space, beginning, middle, end.
4. **POETRY RECITATION-** Rigved Mantras, Vaachik Abhinay.
5. **SELECTION OF PLAY FOR CHILDREN.**
6. **CASTING.**
7. **BUILDING OF A CHARACTER.**
8. **PARTS OF SPEECH-** Volume, Pitch, Speed, clarity, Audibility, Diction, Intonation, Feel and Toner Quality, Projection.
9. **DESIGN OF A PRODUCTION.**
10. **PRODUCTION-** Poster Making, Audience, Execution of Different Aspects of Production, Analysis of Increase in Understanding of Children through Drama.

Suggested Approach for Teaching–learning Process

Every student-teacher must participate and practice different Art forms. They need to be encouraged to visit places of arts/see performances/ exhibitions/art and craft fairs/local craft bazaars, etc. Artists and artisans may be invited for demonstrations and interactions from the community. Student-teachers should be encouraged to maintain their diary on art interactions to enhance their knowledge and awareness in this area. Student-teachers

can also be motivated to interpret art works/ commercials/events etc. to enhance their aesthetics sensibility.

A Resource Centre for Arts and Crafts should be a part of all the RIEs, where materials, including books, CDs, audio and video cassettes, films, software, props, art works of Regional and National level, books and journals must be displayed for the purpose of reference and continuous motivation.

Applications of Arts and Aesthetics in day-to-day life, in the institute and in the community are some of the practical aspects, which needs to be taken care too. Student-teachers must organise and participate in the celebrations of festivals, functions, special days, etc.

Modes of Assessment

The complete course is of 50 marks. It is recommended that evaluation of this course should be done at both the levels; (i) Internal as well as (ii) External. Practical Activities (Units 1 and 2 of 30 marks) in nature are more on the process than the product, hence need continuous and comprehensive evaluation (CCE). Therefore, recommended to be evaluated by the internals. The theory and project part (Unit 3 and Project work of 20 marks) can be in viva-voce and in presentation mode therefore recommended to be evaluated by the externals. The engagement of student-teacher in the above set of experiences should be evaluated on continuous and comprehensive manner, based on (a) submission of work/project; (b) participation in the activities; (c) creative potential displayed; (d) application of aesthetic sensibility in campus events and in other course activities.

Third Semester

CC1 Pedagogy of a School Subject part 2

Objectives:

1. To enable Students to responds to a variety of Maxims of Teaching.
2. To develop the teaching skills of Students.

Course Content:

Unit I- Maxims of Teaching and Micro Teaching

Meaning , Nature and Types of Maxims of Teaching

Meaning , Definition, Principles of Micro Teaching

Micro Teaching Cycle, Process of Micro Teaching

Advantages , limitations and uses of Micro Teaching

Unit II- TEACHING SKILLS

- 1) Introduction Skill
- 2) Fluency in Questioning
- 3) Probing Question
- 4) Explaining
- 5) Illustrating and use of Examples
- 6) Teacher's silences and Non Verbal Cues
- 7) Lecturing
- 8) Reinforcement
- 9) Stimulus variation
- 10) Black board
- 11) Effective Communication
- 12) Recognizing and Attending Behaviours
- 13) Self Induction

- 14) Classroom Management
- 15) Planned repetition
- 16) Achieving Closure

EPC 1 Educational Psychology Practical

PSYCHOLOGY TEST (ANY FIVE)

1. Intelligence Test- Verbal
2. Intelligence Test- Non Verbal
3. Interest Test
4. Attitude Test
5. Learning by Whole and Part Method
6. Personality test -Introvert and Extrovert
7. Value Test
8. Adjustment Test
9. Anxiety Test
10. Achievement Test

Fourth Semester

CC 1 Gender, School and Society

Course Objectives:

To enable the Student Teacher to:

1. To acquaint the student teachers with the concept of gendered roles in society and their challenges.
2. To develop an understanding of the inequality and disparities in equal opportunities in education in societal context.
3. To enable the student teachers to critically examine the stereotypes and rethink their beliefs.
4. To help student teachers to develop abilities to handle notion of gender and sexuality.

Course Contents:

UNIT I Gender Issues: Key Concepts

1. The meaning and concept of gender and experience of gender in across different social groups, regions and time-periods. Challenges in gendered roles in society: Family, caste, religion, culture, the media and popular culture (films, advertisements, songs etc.), law and the state.
2. Unequal access of education to girls; access to schools; gender identity construction at home and in society.
3. Indian societal context: Power and authority in Indian Social System (patriarchy). Socialization of child into a specific gender influences, and opportunities for education.

UNIT II Gender Challenges and Education

4. Challenging gender inequalities or reinforcing gender parity: The role of schools, peers, teachers, curriculum and textbooks, etc.
5. Representation of gendered roles, relationships and ideas in textbooks and curricula.
6. Schools nurture or challenge creation of young people as masculine and feminine selves.

UNIT III Gender Issues and Role of Teacher

7. Counseling and Guidance: Teachers' need help to develop abilities to handle notions of gender and sexuality, (often addressing the issues under diverse

cultural constraints, their own and their students', instead of shying away from the same.)

8. Sex Education: Perceptions of safety at school, home and beyond (The formulation of positive notions of sexuality among young people impact larger issues).
9. Identification of sexual abuse/violence and its verbalisation, (combating the dominant societal outlook of objectification of the female body, and so on.)

UNIT IV Role of the Media and Life Skills Education

10. Role of the media in propagation of popular beliefs, reinforcing gender roles in the popular culture and by implication, at school.
11. Life Skills courses in school: provisions to deal with some issues of gender identity roles and performativity for the development of positive notions of body and self.
12. Gender equality Education: of regions and exploring the roles of the institutions (family, caste, religion, culture, media and popular culture, law and the state).

Assignment:

1. Group Discussion:

B.Ed. students will observe and study the distribution of roles and responsibilities in schools and classrooms, rituals and school routines, processes of disciplining distinctly as for girls and boys, and in classroom interaction. Studying the everyday activities where the majority of girls constitute the assembly choir group and the boys form the inter-school cricket team; girls partnered to be seated with other girl students and boys with boys; sciences associated with boys and humanities with girls; art and craft considered to be the domain of the girls and physical education that of the boys; etc. Teachers need to question such stereotypes and help students rethink their beliefs. Why these issues are delineated only for supplementary extra-curricular periods in school and not integrated into subjects of study need to be discussed.

2. **Group work& activities, brainstorming, audio-visual presentations:** prospective teachers to attend and themselves undertake sessions of open verbalization with school students, voluntary cum friendly involvement in discussions, , together with the co-participation of school (teachers, counselors and other resources), home (parents and siblings) and society (NGOs, other expert groups, etc.).
3. **Assignments and Projects:** Student-teachers will be exposed and trained to prepare pedagogic material and practice a pedagogy which can develop

abilities and confidence in their students to critically evaluate and challenge gender inequalities, while being sensitive to social groups.

References:

1. Acker, S. (1994) Feminist theory and the study of gender and education; In S.
2. Acker, Gendered Education: Sociological Reflections on women, Teaching and
3. Feminism, Buckingham: Open University Press.
4. Barks, O. (1971) Sociology of Education Ed. 2 Landon: Batsford.
5. Kumar, K. (1991) *Political agenda of Education, New Delhi: Sage*.
6. Lips, Hilary M. (1989) Sex and Gender an Introduction, California
7. Mountainview, Mayfield Publishing Company.
8. Shokeshaft, Charol (1989). Women in education administration, New Bury Park: Sage Publication.
9. Crapo, H. (ed.) (1970) Family, Class and education, London: Longman
10. David, Mirrian, E. (1980) State the Family and education, London: Routledge and kegan Paul Desai, 12. Tyler, W. (1977) The sociology of educational inequality, London: Methuen.
13. Chandra, Karuna (1984) Structures and ideologies: Socialization and Education of girl
14. child in South Asia', Indian. Journal of Social Sciences. Vol 3 No. 1.
15. Ahmad, Karuna (1984) 'Social context of Women's Education 1921-81', New frontiers in higher education, Vol.- XV No. 3.

CC 2. Educational Technology & ICT

Objectives: Upon the completion of the course the student-teachers will able to:

- Explain meaning, components, functions of computer and its historical backgrounds.
- Understand the computer peripherals and its Organization in computer system.
- Develop skill in handling computer and using word documents.
- Develop skill in computation, analysis and interpretation of data by using Excel Spread sheets.
- Understand the Educational implications of Power Point Presentation and its use in classroom context.
- Understand the applications of Information Technology in the field of teacher education programme and training.

CONTENT

Unit 1 : Fundamentals of Computer

- 1.1 History and Generations of Computer
- 1.2 Meaning, Definition and Characteristics of Computer
- 1.3 Basic Functions of Computer - Input-Process-Output Concepts
- 1.4 Anatomy of Computer
- 1.5 Classification of Computers:
 - 1.5.1 Based on size and capacity (Micro, Mini, Mainframe and Super Computers.)
 - 1.5.2 Based on working principle (Analog, Digital and Hybrid Computers.)

Unit 2: Computer Organization: Hardware and Software

- 2.1 Input Devices:
 - 2.1.1 Key Board, Mouse, Scanner, Digital Camera, Mike, Digital Board

- 2.2 Central Processing Unit:
Arithmetic and Logic Unit, Control Unit and Memory Units.
- 2.3 Memory Devices (Storage devices):
 - 2.3.1 Primary memory Devices: RAM, ROM, PROM, EPROM and EEPROM.
 - 2.3.2 Secondary memory Devices: Hard Disk, CD-Rom, DVD, Optical Disk, Pen drive.
- 2.4 Output Devices:
Monitor, Printer, Plotter, Speaker
- 2.5 Operating System:
 - 2.1.1 Needs and Functions of Operating System
 - 2.1.2 Types of Operating System – single user and multi user
- 2.6 Programming Languages: Types of Languages – LLL and HLL
- 2.7 Computer Software:
System Software, Application Software and Operating System
- 2.8 Computer Virus and its prevention.

Unit 3: Microsoft Windows (System Software)

- 3.1 Introduction to MS-Windows
Elements of MS-Windows, Start Menu, Desktop, Window Accessories, Control panel, Windows Explorer
- 3.2 Application Programme: MS-OFFICE (**Application Software**) MS-WORD, MS-EXCEL AND MS-POWERPOINT.
- 3.3 Microsoft Word :**
 - 3.3.1 Parts of Ms-Word windows, MS-Word Standard, Formatting, Drawing Toolbars.
 - 3.3.2 Starting Ms-Word, Opening a new document. Opening old document, naming the new document, saving the document using save and save as commands.
 - 3.3.3 Formatting the Document

Fonts: Font style, Size, Bold, Italics, Underline, Normal, Spacing.

Paragraph: Line spacing, Paragraph spacing, Paragraph borders, bullets, Numbered list, Shadings.

Page Setup: Paper orientation, Margins and Paper size. Alignment: Centre, Left, Right, Justified

3.3.4 Editing the Document

Cut, copy, paste, paste special, undo, redo, select all, find, replace, go to, page number, clear

3.3.5 Inserting: Frame, objects, pictures, headers, footers, page number, date and time

3.3.6 Tabs, Tables, Columns : Insert table, delete cells, merge cells, split cells, select row, select column, select table, table auto format, cell height and width headings, sort text and formula

3.3.7 Working with the Drawing Tools : Line, rectangle, ellipse, arc, style, freeform, text box, callout, format callout, fill colour, line colour, line bring to front, send to back, bring to front of text send behind text, flip vertical, flip vertical, rotate right, reshape

3.3.8 Page setting and printing the document and Mail merge

3.3.9 Educational based applications : Preparation of lesson plans using Ms Word

3.4 Microsoft Excel :

3.4.1 Parts of Excel windows, Excel Standard, Formatting, Drawing Toolbars.

3.4.2 Creating a new worksheet, Opening as existing worksheet, saving the worksheet.

3.4.2 Working with worksheet, Inserting and deleting rows & columns merge cells, formulae, sorting, inserting charts.

3.4.3 Preparation of School Time Table, Marks list, Salary Bill etc.

3.5 Microsoft Power Point :

3.5.1 Parts of PowerPoint windows, PowerPoint Standard, Formatting, Drawing Toolbars.

3.5.2. Working with Text –Changing Fonts, Changing Font Size and

Bold, Alignments, Moving text etc

3.5.3. Working with Graphics – Moving the Frames and Inserting Clip Arts, Inserting pictures, Inserting New Slide, Organisation of Charts, Tables, Designing Templates, Master Slide, Colour box etc

3.5.4. Presentation of Slides – Saving Slides, Auto Content Wizard Slide Show, Animation, etc.

3.5.5. Educational based application, use of the Power Point.

Unit 4: Applications Information and Communication Technology in Education

4.1 Introduction to ICT: Meaning, Need and importance of ICT.

4.2 Introduction to Multi Media :

4.2.1 Meaning of Multi media

4.2.2 Scope of Multi media

4.2.3 Components of Multi media

4.2.4 Pre-requisites of Multimedia PC

4.2.5 Graphic Effects and Techniques

4.2.6 Sound and Music

4.2.7 Uses of Multimedia for teaching

4.2.8 Developing a lesson plan using a multimedia package

4.3 Introduction to Internet

4.3.1 Meaning of Internet

4.3.2 Characteristics of Internet

4.3.3 Uses of Internet

4.3.4 Educational based applications of Internet

4.4 Computer Application in Education

4.4.1 Computer Assisted Instruction: Concept, Characteristics, Modes, Merits and demerits.

4.4.2 Computer Assisted Testing : concept, characteristics, modes, merit and demerits

4.4.3 Computer Managed Instruction : concept, characteristics, modes, merits and demerits

4. Introduction to/ website –meaning and importance

4.5.1 Social websites (Blog/Twitter/face book)

Requirements:

1. Infrastructure requirements: In order to implement ICT literacy in in-service teacher education and ICT laboratory/Multimedia centre may have to be setup No. of PCs /Systems will be required.
2. It is recommended that for each student teacher get hands on experience at least one hour per week. College is free to design the practical time table.
3. It is recommended that out of 4 Hours a week. (2 Hours theory and 2 hour practical's.)
4. Institution should have to appoint ICT Teacher with minimum qualification of PGDCA/BCA/MCA

Assignments: (Any One Uniform pattern)

1. Write the History and Generations of Computer.
2. Write the Input, Output and Storage devices of Computer system.
3. Preparation of a Lesson Plan, Student List, Letters, Invitations – Hard copy and Soft copy.
4. MS Excel: Preparation of a School Time table, Marks List – Analysis of Data and Graphical representation - Hard copy and Soft copy.
5. MS PowerPoint: Preparation of Animated slides (Insert Pictures, Cliparts, Word art, sound, effects, animation, etc...)for teaching any concept on your subjects.
6. Internet: Surfing Educative websites, downloading, taking a printout, creating E-mail Id.

Reference

- 📖 Balaguruswamy E. (2001) , *Programming in Basic*, New Delhi: Tata McGraw Hill Publishing Company Limited.
- 📖 Casanova and Molina (1996), *Multi media : Production, Planning and Delivery*, New Delhi : Prentice-Hall of India Private Limited.
- 📖 Gupta, Vikas (1997) , *Micro soft Windows*, New Delhi : Pustak Mahal.
- 📖 Gupta, Vikas (1997), *Rapidex Computer Course*, New Delhi : Pustak Mahal.
- 📖 Harley, Hahn (1996) , *The Complete Internet Reference*, New Delhi: Tata McGraw Hill Publishing Company Limited.
- 📖 Hayes, J.P. (1998), *Computer Architecture and Organisation*, New Delhi:

Tata McGraw Hill Publishing Company Limited.

- 📖 Jain, V.K. (1997), *Computer for Beginners*, New Delhi : Pustak Mahal.
- 📖 Leon, Alexis and Mathews (1998), *E mail in a Nutshell*, Chennai : Leon Tech World.
- 📖 Leon, Alexis and Mathews (1999), *Fundamentals of Information Technology, Chennai*
: Leon Tech World.
- 📖 Milan, Milenkovic (1987), *Operating System - Concept and Design*, New Delhi
: Tata McGraw Hill Publishing Company Limited.
- 📖 Rajaraman V. (1992) , *Fundamentals of Computer*, New Delhi :
Prentice-Hall of India Private Limited.
- 📖 Ron, Mansfield (1994), *The Compact Guide to Microsoft Office*,
New Delhi: B.P.B Publication.
- 📖 Singh, Vishnu Priya and Singh, Meenakshi (1998), *Multimedia Illustrate*,
New Delhi
: Prentice-Hall of India Private Limited.
- 📖 Subramanian N. (1986), *Introduction to Computer Fundamentals*, New Delhi:
Tata McGraw Hill Publishing Company Limited.

CC3: CREATING AND INCULSIVE SCHOOL

Objectives:

On completion of the Course the Student Teacher will be able to :

1. Identify the children of special needs.
2. Understand the nature of special needs their psychoeducational characteristics and functional limitation.
3. Familiarize with assessment and placement procedure for children with special needs.
4. Develop understanding about accommodating special needs in regular classroom.
5. Appreciate the education of children with special needs.

Course Content:

Unit 1- Special needs and education

- Concept and types of special needs.
- education of children with special needs and its implecation for universilisation of elementary education.
- understanding and respecting diversity.
- trends of education for children with special need in india.
- policies schemes and legislations about the education of children with special educational needs.

Unit 2- nature ,types and characteristics of children with special needs

- -psycho-social and educational characteristics functional limitations with reference to-
- locomoter impairment
- hearing impairment
- visual impairment
- learning disability
- gifted and disadvantaged children
- mental retardation and slow learners.

Unit III- Inclusive Education

- concept and philosophy of inclusive education
- teaching competencies required for inclusive education
- Roll of class teachers and Resource teachers in inclusive education.
- School and classroom management for implementing inclusive education.
- guidance and counselling in inclusive education.
- Specific roll of family and community participation.
- Support services needed for inclusive schools

UNIT IV- identification and assessment of children with special educational needs

- Concept and techniques of assessment
- -identification and functional assessment of children with special needs
- -importance of assessment for instructional planning and curriculum.
- curriculum ,adaptation, teaching strategies and evaluation in inclusive school.
- -Principles and methods of curriculum adaptation and adjustment to address diversity.
- teaching learning strategies for children with special educational needs:
- comparative learning ,peer tutoring ,behavior modification, multisensory approach,perceptual strategy and system approach.
- individual educational program (IEP) and use of emerging technology
- adaptation in evaluation procedures.

Practicum: Any one of the following:

(suggested practicum but more activities can be taken up by the teacher based on any topic from above unit)

1. Preparation of a report on importance of education for children with special needs
 2. Case study of children with special needs school in school situation.
 3. Observation of class room situation and identification of special needs.
 4. Identification of gifted /creative /slow learner/children with learning disability using standardized test.
 5. Preparation of teaching plan for accommodation special need(Any one type) in regular classroom.
 6. List out the resources for effective implementation of integration programme with reference to any one category of special needs.
- Apart from the above similar activities from the five units will be identified and given.

References:

1. Montgomery, D. (1990), special need in ordinary schools: children with learning difficulties, Cassel Educational limited, London
2. Ainscow, M. (1990) special needs in the classroom: A Teacher education resource pack UNESCO
3. Hallahan and Kuffman J.M. (1984) exceptional children, Prentice hall
4. Haring N.G. (1986) Exceptional Children and youth Ohio: Columbus Charles E Meml Publishing Co. A Bell and Howell Co.
5. Hegarty S. and Mithu Alur (2002) Education and children with Special

CC 4. Optional Course: **(Any One of the Subject mentioned below)**

Value Education

Objectives: Upon completion of the course the student-teachers will be able to:

1. Understand the concept and types of values.
2. Understand the meaning and basic-theories of axiology.
3. Get an insight into the strategies of inculcation of values among children.
4. Develop awareness about the different agencies working in the sphere of value education.
5. Develop skills and techniques needed to teach value education.
6. Understand the role of the teacher in value education.

CONTENT

Unit 1: Introduction to Values

- 1.1 Values: Concept, Nature, Types and Significance
- 1.2 Classification of Values - Intrinsic Values, Instrumental Values, Moral Values, Aesthetic Values, Economic Values, Social Values
- 1.3 Contemporary Values in Indian Context
 - 1.3.1 Panchakosha Theory of Values
 - 1.3.2 Basic Human Values – Truth, Beauty, Goodness, Love, Peace, Non-Violence
 - 1.3.3 Contemporary Values – Scientific Temper, Intellectual Honesty, Social Service and Protection of Environment.

Unit 2: Strategies of Inculcation of Values

- 2.1 Sources of Value Education – Autobiography and Biography of Great People, Parables, Vedas, Bhagavadgita, Shlokas, Poems, Newspaper Clippings, Episodes

from Real Life, Documents etc.

2.2 Techniques of Inculcating Values in Life

2.2.1 Ashtangayoga (Yama, Niyama, Asana, Pranayama, Prathyahara, Dhyana, Dharana, and Samadhi)

2.3 Role of Teachers in Value Education.

Unit 3: Role of Social Agencies in Value Education

3.1 Family

3.2 Religion

3.3 Educational Institutions

3.4 Community

3.5 Mass Media (Print and Electronic)

3.6 Information and Communication Technology (Computer and Internet)

Unit 4: Value Education in Secondary Schools

4.1 Integrated approach

4.2 Direct Approach

4.3 Incidental approach

4.4 Co-curricular and Extra-Curricular Activities

4.1.1 Resolving Value Conflicts (value crisis)



4.1.2 Discussion of Burning Social and Moral Problems











4.1.3 Project Work and Community Centered Activities

Assignments (any one)

1. Visit to religious institutions which are involved in Educational endeavor
2. Documentation of the contributions of the great personalities and institutions for the promotion and protection of values
3. Selection of incidences/ episodes from the biographies depicting particular/ selected value
4. Preparation of Value Judgment Scale

Reference:

-  Broudy S. Harry (1961) Building a Philosophy of Education, USA, Prentice-hall Inc.
-  Dewey, J. (1916) Democracy and Education. New York: Macmillan.

-  Doyle, T.F. (1973) Educational Judgments. London: Routledge and Kegan Paul.
-  Feather T., Norman (1975) Values in Education and Society, New York: A Division of Macmillan Publishing Co.
-  Gupta, N.L. (1986) Value-education: Theory and Practice, Amjeer, Krishna brothers.
-  Kneller, G.F., (1971) Introduction to the Philosophy of Education. New York: Johnwilly and Sons.
-  Lowenthal, F. and Vandamme F. Eds. (1986) Pragmatics and Education. New York. Planeum.
-  Marlow A.H., Ed. (1959) New Knowledge in Human Values. London: Harper and Row
-  Peters, R.S. (1963) Authority, Responsibility and Education. London: George Allen and Unwin.
-  Rogers, C.R. (1980) A Way of Being. Houghton Mifflin, Boston.
-  Russell, B. (1972) Education and the Good Life. New York: Leveright.
-  Venkataiah N. (Ed), (1998) Value Education. New Delhi: APH Publishing Corporat

Optional Subject

FUTUROLOGY IN EDUCATION

OBJECTIVES:

To acquaint students with the significance of the study of Futures in general and Futurology in particular.

To develop the knowledge and skills of students for Forecasting Futures of Education through methods and techniques.

To develop critical thinking of students about the problem and prospects of school education in future.

CONTENT:

UNIT I: Concept of Future and Future studies:

Needs, Scope and Significance of Futures Studies in General

UNIT II: Concepts of Futurology in Education and Futuristic Education:

Needs and relevance of study of Futurology in Education at Teacher Education stage and School stage

UNIT III: Parameters of Forecasting Educational Futures.

Different methods of Futures Studies: simple Trend Extrapolation, Brain Storming, Delphi, Future Wheel, Role Playing, and Scenario Writing.

UNIT- IV: Futures of Educational System:

Library, Classroom, Methods, Media and Teaching Aids, Textbooks, Examination System, Futures School Teachers and Students. Futures of Primary and Secondary Education in the Context of Social and Technological Change

ACTIVITY:

Group Activity (ONE)

Development of Scenario on any one area of Education as specified in Units 4 and 5 using the activities specified in unit 3.

Individual Activity (ONE)

- a. Designing futuristic course content of own subject at school level on the basis of study of Literature.

- b. Writing Scenario of Future of Students/ Teachers/School/ Environment/ Library/ Teaching Aids/ Textbooks; etc. using Future Wheel Exercise.
- c. Using Future Wheel Exercise.

References:

- Ekisirh Sade ke Liya Shiksha. Palash, Madhya Pradesh Shishak Prashikshan Mandal, Bhopal, Jan., 1990.
- NIEPA Report: Education in the 2001, New Delhi, 1986.
- Passi, B.K. and Sahoo, P.K.: Future Studies National Psychological Corporation, Agra, 1991.
- Reddy, N.: Problems of Futurology. Sterling Publishing Co., New Delhi, 1985.
- Sapra, C.L., and Dadauz, S.S.: Education of the Future Management Challenges. National Book, New Delhi, 1986.
- Seth, S.C.: India- The Next 7000 days. Wiley Eastern Ltd., New Delhi, 1986.
- Seth, S.C.: Future Scan and anticipatory Management. Centre for Anticipatory Management, New Delhi.
- Sharma, P.L.: India the Fourth World. Pankaj, New Delhi, 1985.
- Srivastava, A.P.: Teaching and Learning in XII Century. The Learning Laboratory, New Delhi, 1987.
- Toffler, A.: The Third Wave. Pan book, London, 1980.

Optional Subject

Health and Physical Education

Objectives : Upon completion of the course the student–teacher will be able to :

1. Understand the significance of Health Education for the all-round development.
2. Maintain and promote good health
3. Develop the understanding of physical education and its related fields.
4. Acquire the knowledge about the teaching methods of physical education and its activities.
5. Know about the effective organization of physical education activities.

CONTENT

Unit 1 : Health and Physical Education

- 1.1 Health : Meaning, Aims and Objectives, Importance and Scope
- 1.2 Physical Education : Meaning, Aims and Objectives, Importance and Scope
- 1.3 Related fields – Recreation, Health Education and Education
- 1.4 National and Emotional Integration through Sports and Physical Education
- 1.5 Yoga – Meaning – Astanga Yoga – Significance in Modern Society.

Unit 2 : Health Service and Supervision

- 2.1 Medical Inspection – Meaning, Procedure and Importance
- 2.2 Personal Care – Skin, Eyes, Ears and Teeth
- 2.3 Safety Education – Meaning and Significance, Safety in Classrooms, Play field, Gymnasium, Roads and Homes.
- 2.4 First Aid – Meaning, Significance, principles of giving first aid
- 2.5 Fatigue – Meaning, Causes and Remedies.
- 2.6 Balanced DIET – Meaning and Benefits.

Unit 3 : Leadership, Discipline, Incentives and Awards

- 3.1 Leadership

3.1.1 Qualities of good leader in physical education

3.1.2 Teacher leadership

3.1.3 Student leadership

3.2 Discipline

3.2.1 Meaning

3.2.2 Common forms of indiscipline in schools

3.2.3 Causes for indiscipline

3.2.4 Steps to check indiscipline

3.2.5 Rewards and discipline

3.2.6 Punishment and discipline

3.3 Incentives and Awards

3.3.1 Letter – Crest

3.3.2 Cup

3.3.3 Trophy

3.3.4 Medal

3.3.5 Honour Board

3.3.6 Scholarship

3.3.7 Certificate

3.3.8 Cash prize – based on the Player's Performance

Unit 4 : Organization of Physical Education Activities

4.1 Intramural and Extramural Competitions: Meaning, Organization, Benefits

4.2 Tournaments : Meaning, Types – Knock-out and league, Benefits.

4.3 Sports meet : Meaning, Organization, Benefits.

4.4 Camps and Hikes : Meaning, Organization, Benefits.

Practicum

1. Participation in any one major game and one sports item
2. Ground marking for selected games and sports
3. Commands, line formation and marching, ceremonial parade
4. Participation in two National festival programmes for flag hoisting

References

- 📖 Kamalesh and Sangral, (2000), *Principles and History of Physical Education*, Ludhiana : Tandon Publication,.
- 📖 Nadgir, K.G. (1998) , *Sharir Shikshanad Vidhanagalu*, Dharwad : Mallesajjan Vyayama Shale.
- 📖 Nadgir, K.G.(1997) , *Arogya Muttu Aragya Shikshana*, Dharwad : Mallasajjana Vyama Shale.
- 📖 Prakash Brothers (2000) *Organization, Administration and Recreation in Physical Education*, Ludhiana : Prakash Brother Publication.
- 📖 Rao, V. K. (2003), *Physical Education*, New Delhi : A.P.H. Publishing Corporation.
- 📖 Sarojkant Bihari and Prasanna Kumar Chowdhary (2003), *Health and Physical Education*. Ludhiana : Kalyeni Publishers.
- 📖 Vijendra Kumar (2000), *Modern Methods of Teaching Physical Education*, New Delhi : Sarup & Sons.

Optional Subject Guidance and Counseling in Schools

Objectives: Upon completion of this course the student-teacher will be able to :

1. Understand the principles, scope and need of guidance and counselling in schools
2. Acquaint himself with nature of different problems faced by children in context of learning and development.
3. Understand the acquisition and process of learning in children with special needs.
4. Acquaint himself with learning disabilities of children and its remedies
5. Take up minimum guidance programme at school level.

CONTENT

Unit 1: Guidance and Counselling

- 1.1 Introduction to Guidance and Counselling
- 1.2 Nature, Purpose and Scope of Guidance and Counselling
- 1.3 Difference between Guidance and Counselling
- 1.4 Counselling
 - 1.4.1 Principles
 - 1.4.2 Approaches
- 1.5 Areas of Guidance
 - 1.5.1 Educational Guidance
 - 1.5.2 Vocational Guidance
 - 1.5.3 Personal Guidance *

Unit-2: Problems of Developments in Children

- 2.1 Problems related to physical development
 - 2.1.1 Common problems faced by children
 - 2.1.2 Nutrition
- 2.2 Problems related with Emotional Development
 - 2.2.1 Adjustment to Home
 - 2.2.2 Adjustment to School
 - 2.2.3 Adjustment to Peer Group

- 2.2.4 Problems related to academic achievement
- 2.2.5. Problems related to Gender bias and Gender related issues
- 2.5 Applications of the whole child concept for parents, teachers and counselors
- 2.6 Acquisition and Process of Learning
 - 2.6.1 Concept of learning
 - 2.6.2 Factors affecting learning
 - 2.6.3 Physiological factors
 - 2.6.4 Psychological factors
 - 2.6.5 Socio-emotional factors
 - 2.6.6 Educational factors

Unit 3: Learning Disabilities of Children

- 3.1 Factors Contributing to Learning Problems
 - 3.4.1 External factors – Psychological and Educational
 - 3.4.2 Internal factors – Low general ability, Attention, Specific reading, writing etc.
- 3.2 Assessment of the child
 - 3.2.1 Case history
 - 3.2.2 Assessment of general abilities
- 3.3 Remediation
 - 3.3.1 Principles of Guidance Services
 - 3.3.2 Designing remedial strategies.

Unit 4: Guidance for Children with Special Needs

- 4.1 Meaning, definitions and types of exceptional children
- 4.2 Gifted and Creative children
- 4.3 Slow learners and backward children
- 4.4 Strategies for helping exceptional children to overcome their problems.

Assignments (any one)

1. Case study of a child with special problem.
2. Publication of a career bulletin based on authentic sources of Jobs. Employment
3. Organization of career conference, Campus Interviews, etc.

4. Organization of Counseling session for (Individual / Groups) students who are genuinely in need of Counseling.
5. Organization of Guidance sessions about services and facilities available in a school or college.

References

- 📖 Adams, J.F.(1965) *Counselling and Guidance : A Summary*, New York : The Mc Millan company Ltd.
- 📖 Aggarwal. J. C. *Educational & Vocational Guidance & Counselling*. Delhi : Doaba House.
- 📖 Asha Bhatnagar (1999) *Guidance and Counselling : Theoretical Perceptive*. Vol-1. New Delhi : Vikas Publishing House.
- 📖 Berki B. G. & Mukhopadhyaya. B. *Guidance & Counselling : A Manual*, New Delhi : Sterling Publishers.
- 📖 Byrne, M. and Sheranian. C (1977), *Introduction to Communicative Deriders*, New York: Harper and Row.
- 📖 Cattle, W.C. and Downnie N M (1970) *Preparation for Counselling*, Eaglewood Cliffs. N J : Prentice Hall.
- 📖 Hammil, D D and Bartel N R (Eds) (1975) *Teaching Children with Learning and Behavioural Disorder*. Boston : Allyn and Bacon.
- 📖 Harr, E L and Cramer, S H (1972) *Vocational Guidance and Career Developments in the Schools: Towards a Systems Approach*. Boston : Houghton Mifflin.
- 📖 Jones, A J. (1963) *Principles of Guidance*. New York: McGraw Hill.
- 📖 Kochhar. S. K *Educational & Vocational Guidance in Secondary Schools*. Sterling Publishers : New Delhi.
- 📖 Learner, J.C (1985) *Learning Disabilities*, Boston, Houghton Mifflin.
- 📖 Lowning, L. N. (1968) *Guidance and Counselling Services: Introduction*, Mc. Grow Hill Book Company.
- 📖 Myers, G. *Principles and Techniques of Vocational Guidance*. New York :

McGraw Hill.

- 📖 Rao. S. N *Counselling & Guidance*. New Delhi : Tata McGraw Hill.
- 📖 Sharma. S. R. *Research in Educational & Vocational Guidance*. New Delhi : Anmol Publications.
- 📖 Shertzer, B E and Peter H J (1965) *Guidance: Techniques of Individual Appraisal and Development*. New York : McGraw Hill.
- 📖 Traxler, A C and Narh, R D. (1966) *Techniques of Guidance*. New York : McGraw Hill.
- 📖 Vashita. S. R *Vocational Guidance in Elementary Schools*, New Delhi : Anmol Publications.
- 📖 Warters, J (1960) *Group Guidance: Principles and Practices*. New York : McGraw Hill.
- 📖 Weomberg, C (1966) *Social Foundations of Guidance*. New York : Free Press.

Optional Subject Environmental Education

Objectives : Upon completion of the course, the student-teacher will be able to :

1. Understand the concept, significance, scope and terminologies, objectives and programmes of environmental education.
2. Develop awareness about the various types of pollution, ecological imbalances and life and contributions of environmental activities.
3. Interpret the environmental legislations in conservation and protection of the environment.
4. Understand the role of governmental and non-governmental agencies in environmental education.
5. Apply the methods of teaching and evaluation in environmental education.

CONTENT

Unit 1 : Introduction to Environmental Education

- 1.1 Environmental Education – Concept , Importance and Scope
- 1.2 Objectives and Principles of Environmental Education.
- 1.3 Basic Concepts in Environmental Education
 - 1.3.1 Ecology
 - 1.3.2 Eco-System
 - 1.3.3 Ecological Balance
 - 1.3.4 Food Chain
 - 1.3.5 Pollution and Pollutants
 - 1.3.6 Natural Resources
 - 1.3.7 Green House Effect
 - 1.3.8 Bio-degradable and Non-degradable Materials.
 - 3.3.9 Bio-sphere – Bio-Diversity
- 1.4 National Environment Awareness Campaign (NEAC)
- 1.5 Environmental Orientation for School Education (EOSE)
- 1.6 Environmental Information System (ENVIS).

Unit 2 : Environment and Pollution

- 2.1 Meaning of Environment.
- 2.2 Types of Environment
- 2.3 Types of Environmental Pollution
 - 2.3.1 Air Pollution : Meaning, causes The Air (Prevention and Control of Pollution) Act – 1981.
 - 2.3.2 Water Pollution: Meaning, causes, The Water (Prevention and Control of Pollution) Act – 1977
 - 2.3.3 Soil Pollution : Meaning, causes, Remedies
 - 2.3.4 Sound Pollution : Meaning, causes , Remedies
- 2.4 Ecological Imbalances
 - 2.4.1 Deforestation
 - 2.4.2 Soil Erosion
 - 2.4.3 Extinction of Wild life
 - 2.4.4 Depletion of Ozone layer
- 2.5 Life and Contributions of Environmental Activists.
 - 2.5.1 Mahesh Chandra Mehta
 - 2.5.2 Sunderlal Bahuguna
 - 2.5.3 Vandana Shiva
 - 2.5.4 Maneka Gandhi
 - 2.5.5 Shivaram Karanth

Unit 3 : Agencies in Environmental Education

- 3.1 United Nations Environment Programme (UNEP)
- 3.2 International Union for Conservation of Nature and Natural Resources (IUCN).
- 3.3 Union Ministry of Environment and Forests.
- 3.4 Central Pollution Control Board (CPCB).
- 3.5 Centre for Environment Education (CEE).
- 3.6 National Afforestation and Eco-Development Board (NAEB)
- 3.7 Environment Protection Movements in India.
 - 3.7.1 Chipko Movement
 - 3.7.2 Appiko Movement
 - 3.7.3 Narmada Bachao Andolan (NBA).
 - 3.7.4 Western Ghats Protection Movement

Unit 4: Methods of Teaching Environmental Education

- 4.1 Direct (Specialized) Approach
- 4.2 Integrated (Multi-Disciplinary) Approach

4.3 Incidental Approach

4.4 Co-curricular and Extra-Curricular activities.

4.4.1 Project Work.

4.4.2 Intellectual Meets – Seminars, Symposia, Workshops, Conferences, Group Discussion, Debates, Special Lectures, Brain Storming.

4.4.3 Field Outreach and Extension Activities.

4.4.4 Eco-Clubs / Nature Clubs.

4.4.5 Problem Solving Activities related to Burning Ecological Problems.

4.4.6 Quiz, Poster Making, Models Making and Exhibitions.

4.5 Evaluation in Environmental Education

4.5.1 Formative Evaluation

4.5.2 Summative Evaluation.

Practicum / Assignments (any one)

1. Visit any one of the following organization and prepare a report on the history, structure, functions and activities
 1. District Environment office
 2. Paryavaran Vahini
 3. Eco-clubs /Nature clubs
2. Collect articles published in News Papers / Periodicals concerning environment and write a critical comment on them.
3. Prepare a Directory of individuals and institutions working for protection of the purity of the environment in your district / state and document the activities of any three individuals and three institutions.
4. Collect Twenty Five complaints published in Newspapers/Periodicals concerning pollution of the environment and suggest plan of action for solution of the complaints.
5. Prepare an Annotated Bibliography of 50 Websites concerning Environment, Ecology, Forests, Nature, Environmental Education.
6. Prepare a list of academic courses/programmes run by 50 universities/ educational institutions about Environmental Science, Environment Education and Ecology, Environment Engineering etc.
7. Create a Garden in your college and document your experiences.
8. Organizing environment education activities for school students (any two)

Exhibitions, quiz competitions, plays, slogan development, environment skits, Dramas, Essay and Drawing competitions.

9. Interviewing Ten Environmental Activists championing a genuine environmental movement and use the recorded interview for creating awareness among 20 families.

References

- 📖 Government of India (2001) *India – 2001 – A Reference Annual*, New Delhi : Ministry of Information and Broadcasting.
- 📖 Carson, Sean Mc. B. (1978) *Environmental Education – Principles and Practices*, London : Edward, Arnold Publishers.
- 📖 Dash, M. C. (1993) *Fundamentals of Ecology*, Tata McGraw Hill.
- 📖 Khopkar, S. M. (1995) *Environmental Pollution Analysis*, New Delhi : New Age International Pvt. Ltd.
- 📖 Krishnamacharyelu, V. and Reddy, G. S. (2000) *Environmental Education*, Hyderabad: Neelkamal Publications Pvt. Ltd.
- 📖 Mallik, S. C. and Bhattacharya, D. K. (1986) *Aspects of Human Ecology*, New Delhi : Northern Book House.
- 📖 National Council of Educational Research and Training (1981) *Environmental Education at the School Level*, New Delhi.
- 📖 Patro, S. N. and Panda, G. K. (1994) *Eastern Ghats in Orissa : Environment, Resources and Development*, Bhubaneswar : Orissa Environmental Society.
- 📖 Purushotham Reddy and Narasimha Reddy, D. (2002) *Environmental Education*, Hyderabad : Neelkamal Publications Pvt. Ltd.
- 📖 Saxena, A. B. (1986) *Environmental Education*, Agra : National Psychological Corporation.
- 📖 Sharma, R. C. (1981) *Environmental Education*, New Delhi.
- 📖 Sharma, R. C. (1985) *Inter Disciplinary Approaches in Environmental Education*, Paris.
- 📖 Sharma R. K. and. Kaur, H (2000) *Air Pollution*, Meerat : Goel Publishing House.
- 📖 Sharma, B. K. and Kaur, H. (2000) *An Introduction to Environmental Pollution*, Meerat : Goel Publishing House.
- 📖 Sharma, B. K. and Kaur, H. (1994) *Soil and Noise Pollution*, Meerat: Goel Publishing House.
- 📖 Sharma, J. N. (1991) *An Introduction to Water Pollution*, Meerat : Krishna Prakash

Mandir.

- 📖 UNESCO, *Environmental Education – Principles of Teaching and Learning*, Paris.
- 📖 ----- (1985) *Evaluation of Environmental Education in Schools – A Practical Guide for Teachers*, Paris.
- 📖 ----- (1985) *Interdisciplinary Approaches in Environmental Education*, Paris.
- 📖 ----- (1985) *Living the Environment*, A Source Book in Environmental Education.
- 📖 ----- (1987) *Trends in Environmental Education*, Paris.
- 📖 ----- (1985) *Guide on Environmental Value Education*, Paris.

Optional Subject Action Research

Objectives : Upon completion of this course the student-teacher will be able to:

1. Acquire the knowledge of concept of research and educational research.
2. Understand the concept of basic, applied and action research and their differences.
3. Understand the meaning, significance and scope of action research
4. Become aware of action research problems in different areas in schools.
5. Acquire the knowledge of steps involved and tools used in action research.
6. Acquire the skills of conducting action research and to develop the skills of interpreting and reporting the findings of action research.

CONTENT

Unit 1 : Research and Educational Research

- 1.1 Research – meaning, definition and importance.
- 1.2 Educational Research – meaning, definition and importance.
- 1.3 Steps in Educational Research.
- 1.4 Types of Research : Fundamental/Basic, Applied and Action Research – meaning definition and importance.
- 1.5 Methods of research : Historical, Experimental and Survey
- 1.6 Differences between applied and action research with reference to –
 - i) purpose, ii) definition, iii) hypotheses, iv) sample, v) data collection instruments,
 - vi) data analyses, vii) generalization, viii) limitations

CONTENT

Unit 2 : Action Research

- 2.1 Meaning, definition and scope of action research.
- 2.2 Importance of action research to classroom teachers, administrators and guidance personnel.
- 2.3 Limitations of action research
- 2.4 Action problems in different areas in schools – examples.

Unit 3 : Research Steps and Tools

- 3.1 Steps in Action Research
 - 3.1.1 Identifying the problem area (examples – experimental design and qualitative design).

- 3.1.2 Pinpointing the problem.
- 3.1.3 Problem analysis in terms of causes.
- 3.1.4 Identifying the objectives.
- 3.1.5 Formulating action hypotheses.
- 3.1.6 Designing action plan.
- 3.1.7 Execution of the plan.
- 3.1.8 Analysing the data.
- 3.1.9 Findings
- 3.1.10 Reporting.

3.2 Tools of Data Collection.

- 3.2.1 Achievement Test, Questionnaire, Interview Schedule, Checklist, Rating Scale – meaning, need, advantages and limitations.
- 3.2.2 Tests/Inventories of Aptitude, Attitude, Interest, Personality, Values, Intelligence and Creativity (Knowledge of at least 2 tests in each category).
- 3.2.3 Measures in classroom – Sociometric technique and Classroom Social Distance Scale (uses of these tools in action research)

3.3 Quantitative and Qualitative data : meaning and examples.

- 3.3.1 Analysis of the Data – frequency distribution, measures of central tendency, variability,
- 3.3.2 Co-efficient of correlation (Pearson's rank difference method).
- 3.3.3 Interpretation of data with an example – descriptive and graphical.
(Note : to be discussed without computation)

Unit 4 : Action Research Report

- 4.1 Format of report in terms of steps of action research (as in 3.1 above).
- 4.2 Summary, bibliography and appendix.

Assignments (any one)

Preparation of an action plan on a classroom problem such as :

- a. identifying causes of poor reading ability and suggesting remedial measures.
- b. identifying the causes and types of spelling errors and suggesting remedial measures.
- c. identifying the causes of poor map-reading skills and suggesting remedial measures.
- d. identifying the causes for poor drawing of diagrams and suggesting remedial measures.

- e. identifying the causes of truancy and suggesting remedial measures.
- f. identifying the causes of problem behaviour of students in the classroom and suggesting remedial measures.
(any other problems similar to above mentioned)

Reference

- 📖 Aggarwal, J.C. (1975), *Educational Research : An Introduction*. New Delhi : Arya Book Depot.
- 📖 Best, J. W. and Kahn, J. V. (2002), *Research in Education*, (7th Ed.) New Delhi : Prentice Hall Pvt. Ltd.
- 📖 Corey, S.M. (1953), *Action Research to Improve School Practices*, New York: Bureau of Publications, Columbia University.
- 📖 Fox, D. J. (1969), *The Research Process in Education*. New York : Holt, Rinehart and Winston, Inc.
- 📖 Garrett, H.E. (1969), *Statistics in Psychology and Education*. Bombay : Vakils, Feffer and Simons, Ltd.
- 📖 Koul, L. (1984), *Methodology of Educational Research*, New Delhi : Vikas Publishing House Pvt. Ltd.
- 📖 McLean J.E. (1995), *Improving Education through Action Research*, California : Corwin Press, INC.
- 📖 NCERT (1979), *Research in Classroom*, New Delhi : Volume I to IV.
- 📖 Sharma, R.N. (1993), *Methodology of Research in Education*, New Delhi : Surjeet Publications.
- 📖 Sidhu, K. S. (1984), *Methodology of Research in Education*, New Delhi : Sterling Publishers Pvt. Ltd.
- 📖 Van Dalen, D. (1973) *Understanding Educational Research : An Introduction*. New Delhi : McGraw Hill Book Co.

EPC 3 : Understanding the Self

Objectives:

- The main aim of this course is to facilitate the development of individuals who can take responsibility for their own learning and give a conscious direction to their lives. Students are encouraged to explore and develop through self-reflection a greater insight into their aims of life, strengths and weaknesses and dynamics of formation of identity and a true individuality.
- Students also develop a capacity for social-relational sensitivity, effective communication skills and ways to create harmony within one's own self and society. The workshops are also aimed at equipping the students with positive attitudes, attributes and skills that help in facilitating the personal growth of their own students while teaching.
- To help student teachers discover and develop open-mindedness, the attitude of a self-motivated learner, having self-knowledge and self-restraint.
- To help student teachers develop the capacity for sensitivity, sound communication skills and ways to establish peace and harmony.
- To develop the capacity to facilitate personal growth and social skills in their own students

Unit 1: Exploring the Aim of Life Objectives

- To enable students to develop a vision of life for themselves.
- To encourage students to give conscious direction to their lives to take responsibility for their actions.
- To develop a holistic and integrated understanding of the human self and personality.

Workshop Themes

- Vision as a person: Aspiration and purpose of life.
- Giving a conscious direction to life.
- Understanding different dimensions of self and personality and way in which they influence the dynamics of identity formation, values and direction of life.

Unit 2: Discovering one's True Potential

- To facilitate the personal growth of the students by helping them to identify their own potential
- To develop the power of positive attitude.
- To encourage students to develop the capacity for self-reflection and personal integration.

Workshop Themes

- Understanding one's strengths and weaknesses through self observation exercises.
- Taking responsibility for one's own actions.
- Developing positivity, self esteem and emotional integration.

- Exploring fear and trust; competition and cooperation
- Developing skills of inner self organization and self reflection
- Writing a self-reflective journal

Unit 3: Developing Sensitivity

- To enable students to examine and challenge the stereotypical attitudes and prejudices that influence identity formation and the process of individuation.
- To encourage students to develop the capacity for perspective taking and appreciating different points of view.
- To develop sensitivity towards needs of children by connecting with one's own childhood experiences
Workshop Themes • Understand and challenge the unconscious, conditioned attitudes that are stereotyped and prejudiced (gender, caste, class, race, region, disability etc.) and critically examine the sources of stereotyped messages (e.g., media).
- Defining consciously one's own values towards self and society and develop a capacity to understand and appreciate divergent points of view. Widening their realm of consciousness.
- Developing the capacity for empathic listening and communication skills.
- Understanding one's own childhood and adult-child gaps in society.

Unit 4: Peace, Progress and Harmony

- To develop the capacity to establish peace within oneself
- To develop the capacity to establish harmony within a group and methods of conflict resolution
- To understand the meaning of leadership and develop attitudes and skills of a catalyst
- To understand the basis of social disharmony, the factors those contribute to it and ways to facilitate change

Workshop Themes

- Establishing peace within oneself: exercises of concentration and meditation
- Understanding group dynamics and communication
- Creating group harmony: exploring methods of creating a collective aspiration for progress and conflict resolution
- Exploring the bases of social disharmony: becoming the agents and catalysts of change and exploring methods of facilitating change

Unit 5: Facilitating Personal Growth: Applications in Teaching

- To explore attitudes and methods needed for facilitating personal growth in students

- To explore ways of integrating the facilitation of personal growth and social skills within the formal curriculum

Workshop Themes

Becoming a self-reflective practitioner: becoming conscious of one's own attitudes and communication pattern while teaching.

- Observing children: appreciating social, economic, cultural and individual differences in children and relating with them
- Exploring and practicing ways to facilitate personal growth and develop social skills in students while teaching

Mode of Transaction

There is no standard prescribed material for these workshops. The professional experts are expected to engage with the students with specially designed activities. These could be based on the facilitator's personal integration and unique individual and group characteristics and are rooted within the context of student's lives and contemporary realities. It is suggested that the students be given space to explore and articulate their own sense of life and its issues. They can be encouraged to think a fresh on issues that most closely concern them and use creativity and imagination to develop a perspective on them. The resource materials are an aid in this process. The resource materials can also include newspaper/web articles on contemporary concerns and movies/documentaries and other audio-visual materials. There is a suggested list of resource materials which should be contextualised and updated periodically. Expertise/ Specialization required to teach this course Specialists who have conducted personal development workshops and who have a qualification in clinical and counseling Psychology

Essential Readings

1. Antoine de Saint-Exupery. (1977). *The Little Prince*. London, UK: Wordsworth Edition Translated by Irene Testot-ferry (available in Hindi).
 2. Dalal, A.S. (2001). *Our Many Selves*. Pondicherry, India: Sri Aurobindo Ashram.
 3. Frankl, V. (1946). *Man's Search for Meaning*. New York: Pocket Books.
 4. Joshi, K. (ed) (2005). *The Aim of Life*. Auroville, India: Saiier.
 5. Krishnamurti, J. (1953). *Education and the Significance of Life*, Ojai, California, USA: Krishnamurti Foundation Trust.
 6. NCERT, (2006). *Education for Peace, Position Paper*. New Delhi: NCERT. 7. *Walk with Me: A Guide for Inspiring Citizenship Action*. (2006). New Delhi: Pravah Pub.
- Readings for Discussion 1. Bach, R. (1994). *Jonathan Livingston Seagull*, London, UK: Harper Collins Publications.
2. Chatterjee, D. (1998). *Leading Consciously*, MA, USA: Butterworth-Heinemann.
 3. Gibran, K. (1996). *The Prophet*, Calcutta, India: Rupa & Co.

4. Gupta, L. (2008). Growing up Hindu or Muslim: How Early does it Happen. *Economic and Political Weekly*, 63(6), 35-41.
5. Halder, B. (2006). *A Life Less Ordinary*. New Delhi: Penguin Books. Translated by Urvashi Butalia.
6. Hall, E. and Hall, C. (1988). *Human Relations in Education*. London, UK: Routledge.
7. Joshi, K. (1996). *Education for Character Development*. Dharam Hinduja International Centre for Indic Research.
8. Joshi, P. (2006). Negotiating Identity: Voices of Children with Disabilities in Regular Schools. *Contemporary Education Dialogue*. 3(2), 1175-195.
9. Kumar, K. (1986). Growing Up Male, *Seminar*, No. 318.
10. *Seminar, Identity*. No. 387, November 1991. New Delhi.
11. UNESCO, (2001). *Learning the Way of Peace: A Teachers' Guide to Peace Education*. New Delhi: United Nations Educational, Scientific and Cultural Organization.

Suggested Audio-Visual Resources

1. Aim of Life by Kireet Joshi (DVD) for DVD/facilitation contact mothersinstitute@hotmail.com
 2. Full of Life: A sensitive Japanese Teachers explores feelings, death with 10 year olds. (<http://www.arvindguptatoys.com/films.html>)
 3. Personality Development (Interactive CD, Computer Only) With Yoga and Guided Meditation Modules, Indus Quality Foundation
 4. The House on Gulmohar Avenue by Samina Mishra (www.cultureunplugged.com)
- Advanced Readings 1. Csikzentmihalyi, M. (1993). *The Evolving Self: A Psychology for the Third Millennium*. New York: Harper Collins. 2. Dalal, A.S. (1987). *Living Within*, Pondicherry, India: Sri Aurobindo Ashram Trust. 3. Dalal, A.S. (2001). *A Greater Psychology*. Pondicherry, India: Sri Aurobindo Ashram Trust

EPC 4: Understanding of ICT

Objectives: Upon the completion of the course the student-teachers will able to:

- Develop skill in handling computer and using word documents.
- Develop skill in computation, analysis and interpretation of data by using Excel Spread sheets.
- Understand the Educational implications of Power Point Presentation and its use in classroom context.
- Understand the applications of Information Technology in the field of teacher education programme and training.

Practicum :

1. **Computer Fundamental**

- Instructions on operating the Computer
- Connecting of all peripherals to CPU for a system
- Switching on/off/restart
- Inserting/removing a floppy from the floppy drive
- Running a file from a floppy using floppy drive
- Copying a file from hard disk to floppy disk
- Inserting/removing a CD from the CD-ROM drive
- Running a file from a CD-ROM using CD-ROM drive
- Copying files from one drive to another
- Creating a new folder
- Running a file from hard disk
- Connecting the printer and print out hard copies

2. **Exercise in Ms-Word**

- Creating a new document
- Formatting and editing of a document
- Inserting pictures, objects, frames and tables
- Practicing Mail-Merge facility
- Working with the drawing tools

3. **Exercise in Ms-Excel**

- Creating a new worksheet
- Inserting and deleting rows/columns in worksheet
- Formatting and editing of a document - sorting
- Preparation of statement of marks and using of some statistical concepts – Descriptive Statistics
- Preparation of School Time Table
- Preparation of Tables

4. **Exercise in Ms-Power Point**

- Preparation of MS-PowerPoint presentation using text, picture, sound, word art, clipart, and the other available tools with animation

5. **Exercise in Information and Communication Technology**

- Browsing the Internet and down loading – search word using search engine
- Working with Multimedia
- Receiving/Sending of E mail and attachment