

**B.Ed. Degree Programme**  
**Semester- IV**  
**CURRICULUM AND LEARNING DOMAINS**  
 (4 Credits-120 Hours)

**✍ COURSE OBJECTIVES:**

*On successful completion of the course, the student teacher will be able to:*

1. realise the significance of cognitive domain on education.
2. evaluate the thought of thinkers on Education.
3. analyse the basic concepts of curriculum.
4. identify the determinants and considerations of curriculum construction.
5. comprehend the process of curriculum development.

**Unit- I: COGNITIVE DOMAIN AND ITS SIGNIFICANCE (Taxonomy)**

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Makes distinction between knowledge and information and reason based on epistemological basis of education	1.1 Cognitive Domain – Meaning, significance 1.2 Differentiate between Knowledge and knowing, Information and knowledge, 1.3 Types of knowledge 1.3.1 Local and universal 1.3.2 Concrete and abstract 1.3.3 Theoretical and practical 1.3.4 Contextual and textual 1.3.5 School and out of school	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Briefing</li> <li>• Seminar</li> <li>• Assignment</li> </ul>	<ul style="list-style-type: none"> <li>• QA Session</li> <li>• Seminar Presentation</li> </ul>

**Unit- II: CONTRIBUTIONS OF EDUCATORS ON KNOWLEDGE**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Analyses the contributions of thinkers on Knowledge	2.1 Thoughts of thinkers on knowledge and education 2.1.1 John Dewey 2.1.2 Mahatma Gandhi 2.1.3 Paulo Friere 2.1.4 Rabindranath Tagore 2.1.5. Plato 2.1.6. Martin Buber	<ul style="list-style-type: none"> <li>• Lecture - Briefing</li> <li>• Seminar</li> <li>• Assignment</li> <li>• Digital presentation</li> </ul>	<ul style="list-style-type: none"> <li>• QA Session</li> <li>• Seminar Presentation</li> </ul>

**Unit- III: CURRICULUM AND ITS MEANING**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Recognises the various concepts of curriculum	3.1 Curriculum - Meaning, nature and principles of curriculum 3.2 Types of curriculum: i) subject centred, ii) student centred, iii) society centred iv) life centred. 3.3 Need for Curriculum in schools 3.4 Curriculum and syllabus 3.5 Core curriculum Vs eclectic curriculum 3.6 Hidden' curriculum Vs planned curriculum	<ul style="list-style-type: none"> <li>• Peer Learning</li> <li>• Digital Presentation</li> </ul>	<ul style="list-style-type: none"> <li>• Class Test (Written/ Oral)</li> <li>• Quiz</li> </ul>

**Unit- IV: CURRICULUM: DETERMINANTS AND CONSIDERATIONS**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Recognizes with the determinants and considerations of curriculum construction 2. Identifies the aspirations and issues that influence curriculum.	4.1. Determinants of curriculum construction Social , Political, Cultural, Geographical, Economic, Technological, and Cultural Determinants 4.2 Critical concerns in curriculum construction: 4.2.1 Environmental concerns 4.2.2 Gender issues concerns 4.2.3 Inclusiveness 4.2.4 Value concerns and issues 4.2.5 Social sensitivity	<ul style="list-style-type: none"> <li>• Peer Learning</li> <li>• Digital Presentation</li> </ul>	<ul style="list-style-type: none"> <li>• Class Test (Written / Oral)</li> <li>• Quiz</li> </ul>

**Unit- V: CURRICULUM DEVELOPMENT**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested strategies and Approaches</b>	<b>Assessment</b>
1. Understands the process of curriculum development 2. Realizes with the support system that enables curriculum transaction	5.1 Process of Curriculum Development: Subject-centred, Environment-oriented (incorporating local concerns) Learner- centred 5. 2 Process of curriculum construction. Formulating aims and Objectives, Criteria for	<ul style="list-style-type: none"> <li>• Lecture - Briefing</li> <li>• Seminar</li> <li>• Peer Learning</li> <li>• Assignment</li> </ul>	<ul style="list-style-type: none"> <li>• QA Session</li> <li>• Seminar Presentation</li> </ul>

	<p>selecting knowledge organising and incorporating knowledge, attitude and skills -inter relationship of subjects</p> <p>5.2.1 Selection and Organisation of learning environments.</p> <p>5.3 Curriculum transaction</p> <p>5.3.1 Support system for \ curriculum trans action (men and material)</p> <p>5.4 Role and responsibilities of teachers in curriculum development.</p> <p>5.4.1.curriculum evaluation - Need for evaluation - Feedback from learners, teachers, community, and administrators .</p>		
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#### SUGGESTED ACTIVITIES (Any Two)

1. Analysis of any textbook with focus on learning outcome.
2. Critical appraisal of the thought of a contemporary Indian thinker on knowledge and education and their presentation.

3. Conduct of an interview with national \ state awardees related to education / MLA /MP/ Panchayat President / DEO/ CEO / academicians and preparation of a report.
4. Discuss concerns in curriculum construction and prepare a report.

#### PRESCRIBED READINGS

1. Mohan. N., & Kamala, Kannan. R. (2016). *Knowledge and curriculum*. Dharasuram: Thiruvalluvar publications.
2. Chisholma, Rodrick. M. (1987). *Theory of knowledge*. New Delhi: Prentice hall of India Pvt.
3. Vashist. S. R. (2004). *The theory of curriculum*. New Delhi: Anmol publication pvt.
4. Mirnalini. T (2007). *Curriculum development*. Hyderabad: Neel kamal publications pvt. Ltd.
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2. Badheka.G. (2001). *Ball Shikshamaur Shikshak Bikaner: Vaagdevi Prakashan*.
3. Dewey. J. (1952). *The School and the Child*. New York: The Macmillan. Company. (Also available in Hindi School and Bachche Translation: RRCEE).
4. Palmer, Joy A. et al (2001). *Jean –Jacques Rousseau, John Dewey*.
5. Rabindranath Tagore. M. K. Gandhi, Maria Montessori Fifty Major Thinkerson. Education from Confucius to Dewey. USA: Routledge.
6. Badheka.G. (1999). *Montessori Paddhati*. Chapter 5: Montessori Shalaka. *Vatavaran. Bikaner: Vaagdevi Prakashan*.
7. Dewey.J. (2009). *School aur Samaj*. Delhi: Aakar. Chapter 2: Schoolaur. *Bachheka Jeevan* (Also available in English Dewey (2007, 1899).The School and Society Cosimo: NewYork).

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9. Rousseau, Jacques J.(1979). *Emile or on Education*, translated by Allan Bloom Basic.7-18.
10. Sykes, M. (1988). *The Story of Nai Taleem*, Nai Taleem Samiti, Sevagram: Vardha. Chapter 3: *The Seed Germinates*, Chapter 4: Basic National Education, (Also available in Hindi Naitaleem Ki Kahani Translation:RRCEE)
11. Thakur, R. (2004). *Ravindranathka Shikshadarshan* Chapter 1: Tote kiShiksha, Chapter Aashram Shiksha, New Delhi: Granthshipli. Weir (Eds.), *Curriculum, syllabus design and equity: A primer and model* Routledge.
12. Shulman.L.S. (1986). *Those who understand: Knowledge growth in teaching*.Educational Researcher, 4–14.
13. Sternberg, R.J. (2013). *Intelligence, competence, and expertise*. In A. J. Elliot & C.S.
14. Dweck (Eds.), *Handbook of competence and motivation* (pp. 15–30).Guilford Publications.
15. Stiggins.R. (2005). *From formative assessment to assessment for learning: A path to success in standards-based schools*. Phi Delta Kappan,324–328.
16. Sykes.M. (1987). *The story of Nai Talim*. Wardha: Nai Talim Samiti.
- 17.Tagore. R. (2003). *Civilization and progress*. In Crisis in civilization and other Essays. New Delhi: Rupa & co.
18. The PROBE Team. (1999). *Public report on basic education in India*. Delhi: Oxford.
19. NCERT (2014). *Basics in Education-Textbook for B. Ed. Course*. New Delhi: NCERT.

**B.Ed. Degree Programme**

**Semester- IV**

**GENDER JUSTICE AND INCLUSIVE EDUCATION**

(4 Credits – 120 Hours)

**COURSE OBJECTIVES:**

*On successful completion of the course, the student teachers will be able to:*

1. develop understanding about meaning and significance of Inclusive education
2. analyze the diversity among the differently abled and policies for them
3. appreciate the practices needed to create an inclusive school by addressing learners' diversity
4. develop basic understanding of gender related concepts, gender identity and socialization process.
5. understand the role of schools, peers, teachers, curriculum and text books in challenging gender inequalities / reinforcing gender parity
6. analyze the gender issues in the society

**Unit- I: UNDERSTANDING INCLUSIVE EDUCATION**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Distinguishes psychological, socio- cultural, economic, emotional diversity and learning difficulties. 2. Identifies the historical background of inclusive education. 3. Expresses the concept of inclusion 4. Distinguishes inclusive, integrated and segregated education 5. Appraises the need for inclusive schools 6. Examines strengths and limitations of inclusive schools	1.1 Diversity–gender – culture and language –marginalized- economic disparities- special ability groups, children with social, emotional and behavioural difficulties, Specific learning difficulties. 1.2 Diversity and inclusion in education 1.3 Historical perspective of inclusive education.- From exclusion to inclusion. 1.4 Concept, meaning and definition of inclusion 1.5 Understanding the Difference: Inclusive, Integrated and segregated Education. 1.6 Need and importance of inclusive school in view of Right to Education in India 1.7 Inclusive schools- strength sand limitations	<ul style="list-style-type: none"> <li>• Lecture- discussion</li> <li>• Power point presentations</li> <li>• Invited lectures</li> <li>• Brainstorming</li> <li>• Netsurfing</li> <li>• Field visit</li> </ul>	<ul style="list-style-type: none"> <li>• Observation</li> <li>• QA session</li> <li>• Class test</li> <li>• Analysis of digital document</li> <li>• Report</li> <li>• Assignment</li> </ul>



**Unit- II: DIVERSITY AMONG DIFFERENTLY ABLED, POLICIES AND  
LEGISLATIONS**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Interprets physically and mentally differently abled. 2. Appraises policy and legislative frameworks promoting inclusion 3. Outline services and programmes available for differently abled.	2.1 Children with sensory and speech disabilities, Visual impairment, Hearing and Speech impairment: Nature, Needs, Assessment, Intervention and Teaching Strategies. 2.2 Children with Neuro Developmental Disabilities Intellectual Disability(Cerebral Palsy), Learning Disability and Autism Spectrum Disorder: Nature, Needs, Assessment and Intervention. 2.3 Children With Loco Motor, and Multiple Disabilities Nature, Needs, Assessment and Intervention. 2.4 Constitutional provisions, policies,	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Debates</li> <li>• Seminar</li> <li>• Small group. discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Observation</li> <li>• Assignment</li> <li>• Report</li> <li>• Test</li> <li>• Posts</li> <li>• Quiz</li> <li>• Seminar presentation</li> <li>• Class test</li> </ul>

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	programmes and acts for the differently abled. Sarva Shiksha Abhiyan, Inclusive Education of Differently abled at Secondary Stage (IEDSS) Rashtriya Madhyamik Shiksha Abhiyan		
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Fourth Semester

## Unit- III: ADDRESSING LEARNERS' DIVERSITY IN SCHOOLS

Learning Outcome	Content	Suggested strategies and Approaches	Assessment
<p>1. Analyses the cultures and practices needed to create an inclusive School.</p> <p>2. Recognizes instructional strategies and school support to create inclusive learning environment.</p> <p>3. Identifies alternative means for assessment and remedies in inclusive classrooms</p>	<p>3.1 Characteristics of inclusive learning Environment.</p> <p>3.2 Curriculum adaptation: Concept Need and Principles of adaptation.</p> <p>3.3 Concept of resource teacher parents and communities in schools. Resource Mobilization, Collaborating with other Professionals, Collaborating with other Institutions ,Parents and Community as Resources</p> <p>3.4 Strategies for Dealing with Diversity in the Classroom: Individualized</p> <p>3.5 Educational Plan (IEP), Universal Design for Learning (UDL) and Differentiated Instruction (DI) Collaborative teaching,</p> <p>3.6 Aids, Appliances and Information Communication</p>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Group Discussion and Presentation</li> <li>• Panel Discussion</li> <li>• Debates</li> <li>• Seminar</li> <li>• Small group</li> </ul>	<ul style="list-style-type: none"> <li>• Report</li> <li>• Assignments</li> <li>• presentation</li> <li>• Observation</li> <li>• Class test</li> </ul>

	<p>Technology(ICT) for Students with Special Needs</p> <p>3.7 Alternative means for assessment and evaluation in inclusive classrooms, monitoring and remedies, learner support- Technological assistive and adaptive devices.</p>		
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**Unit- IV: GENDER: CONCEPT, ROLES IDENTITY, SOCIALIZATION  
ISSUES IN THE SOCIETY**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
<p>1. Recognizes the differences between sex and gender</p> <p>2. Explains Gender related concepts</p> <p>3. Identifies gender roles</p> <p>4. Explains the gender identity and socialization process</p> <p>5. Recognises the role of agencies in gender identity and socialisation</p> <p>6. Analyses gender issues</p> <p>7. Analyses</p>	<p>1.1 Concept of gender and transgender. Difference between gender and sex</p> <p>Gender related concepts: patriarchy, matriarchy, masculinity, equity and equality, sexuality.</p> <p>1.2 Gender role: Gender roles in family, caste, class, religion, culture and media</p> <p>1.3 Gender Identity and Socialization Practices: Role of Family, School, peer group, community and Media</p> <p>1.4 Gender Issues:</p>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Discussion</li> <li>• Class Seminar</li> </ul>	<ul style="list-style-type: none"> <li>• Seminar</li> <li>• Presentations</li> <li>• Report</li> <li>• Test( oral / written)</li> </ul>

<p>stereotyping</p> <p>8. Examines gender based violence</p> <p>9. Analyses the female body objectification</p> <p>10. Analyses gender stereo types in mass media</p>	<p>Gender bias, gender stereo typing, and gender inequalities. Reasons for gender inequalities</p> <p>1.5 Gender-based violence (GBV) Violence Against women in Indian society. Offences against women and girls</p> <p>1.6 Meaning and concept of body objectification - Combating female body objectification:</p> <p>1.7 Gender stereotypes in mass media objectification of female body- propagation of popular beliefs through media.</p>		
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**Unit- V: GENDER DISCRIMINATION AND PARITY IN EDUCATION**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Discusses gender discriminations in education 2. Reviews textbooks and curriculum 3. Identifies the ways and means to achieve gender equality and parity	2.1 Gender discriminations in education: school facilities, environment, class room interactions, rituals and school/ routines, curriculum, textbooks, pedagogy, Discipline, parents and teachers attitude 2.2 Influence of education on gender equality. Gender fair school environment, access to basic amenities and other instructional resources to girls- measures to gender equality. Role of school, parents, peers, teachers, curriculum and textbooks in reinforcing gender parity. 2.3 Gender Parity in education: ways to achieve; women	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Group Discussion and Presentation</li> <li>• Document analysis</li> <li>• Panel Discussion</li> <li>• Debates</li> <li>• Seminar</li> <li>• Discussion</li> <li>• Assignment</li> <li>• Group discussion</li> <li>• Small group session</li> </ul>	<ul style="list-style-type: none"> <li>• Document Analysis</li> <li>• Test( oral / written)</li> <li>• Report</li> <li>• Seminar Presentations</li> </ul>

	access to and participation in education: Mahila Samakhya, National Program for Education of Girls at Elementary Level (NPEGEL), Kasturba Gandhi Balika Vidyalaya (KGBV)		
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### SUGGESTED ACTIVITIES (Any two)

1. Prepare a case study of a differently abled learner.
2. Prepare the need profile of all children in a class. Analyze the profile thus prepared for establishing relation between students' needs and their abilities/disabilities
3. Prepare a report on violation of girl's rights by collecting data from various media resources.
4. Prepare a report on analysis of textual materials from the perspective of gender bias

### PRESCRIBED READINGS

1. Alice, Raj kumar. M., Rita Sundari.D., & Digumarti, Bhaskara,Rao, (2004). *Special Education*. New Delhi: Discovery Publishing House.
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3. Chakraborty, Asok, Bhattacharjee, Amitetal. (2013). *Principles of management in employment of persons with mental retardation*. New Delhi: Kanishka Publishers.
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1. Berdine.W. H., & Blackhurst. A. E. (eds.). *An Introduction to Special Education*, Harpers Collins Publishers, Boston1980.



2. Dunn.L & Bay.D. M (ed.). *Exceptional Children in the Schools*, New York: Holt, Rinehart, Winston.
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4. Hewett, Frank.M., .& Foreness Steven.R., *Education of Exceptional Learners*, Allyn & Bacon, Masachusetts,1984.
5. Jorden, Thomes E. (n.d.). *The Exceptional Child*, Ohio: Merrill.
6. Kirk.S.A., & Gallagher J.J., *Education of Exceptional Children*;Houghton Mifflin Co., Boston, 1989.
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**B.Ed. Degree Programme**  
**Semester-IV**  
**EMERGING TRENDS IN BIOLOGICAL SCIENCE EDUCATION**  
 (4 Credits -120 Hours)

**✍ COURSE OBJECTIVES:**

*On successful completion of the course the student teacher will be able to*

1. appreciate new developments in Biological Science.
2. apply the knowledge of various teaching models for teaching Biological science.
3. develop skill in selecting appropriate innovative strategies to transact the content.
4. develop techno pedagogical skills.
5. develop the competencies required for a Biology teacher

**Unit- I: NEW DEVELOPMENTS IN BIOLOGICAL SCIENCE**

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Realizes the significance of new developments in Biological Science	1.1 Biotechnology 1.2 Nano bio-technology 1.3 Population genetics 1.4 Genetic Engineering 1.5 Gene Cloning 1.6 Conservation of natural resources	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Discussion</li> <li>• Digital presentation</li> <li>• Peer learning.</li> <li>• Seminar</li> <li>• Assignments</li> </ul>	<ul style="list-style-type: none"> <li>• Tests (written/oral)</li> <li>• Report writing</li> <li>• Seminar presentation</li> <li>• Projects.</li> <li>• Assignment evaluation</li> </ul>

**Unit- II: MODELS OF TEACHING**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Identifies various teaching models for teaching Biological Science 2. Prepares lesson plans based on models of teaching	2.1 Models of teaching – elements and functions. 2.2 Concept Attainment model 2.3 Advance organizer model 2.4 Inquiry training model	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Discussion</li> <li>• Digital presentation</li> <li>• Interactive learning</li> <li>• Lesson plan preparation</li> </ul>	<ul style="list-style-type: none"> <li>• Tests (written/oral)</li> <li>• Observation</li> <li>• Lesson transcript/ plan</li> </ul>

**UNIT-III: EMERGING STRATEGIES FOR TEACHING BIOLOGICAL SCIENCE**

<b>Learning outcomes</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Identifies various innovative strategies 2. Selects appropriate innovative strategies to transact the content	3.1 Co-operative learning 3.2 Collaborative learning 3.3 Concept mapping 3.4 Brain based learning 3.5 Experiential learning 3.6 Blended learning 3.7 E-learning	<ul style="list-style-type: none"> <li>• Briefing/lecture</li> <li>• Group discussion</li> <li>• Peer learning</li> <li>• Brain Storming</li> <li>• Seminar</li> <li>• Participatory Learning</li> </ul>	<ul style="list-style-type: none"> <li>• Test (written/oral)</li> <li>• Observation</li> <li>• Seminar presentation</li> </ul>

**Unit- IV: TECHNO PEDAGOGIC CONTENT KNOWLEDGE**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Identifies ways and means to link technology to pedagogic content knowledge. 2. Prepares a blog	4.1 Techno pedagogic content knowledge 4.1.1 Ways and means to link technology to pedagogic content knowledge 4.2 Web based learning 4.3 Blog creation 4.4 Science teacher as a techno pedagogue 4.4.1 Techno pedagogical skills	<ul style="list-style-type: none"> <li>• Briefing/lecture</li> <li>• Discussion</li> <li>• Interactive Learning</li> <li>• Digital presentation</li> <li>• Hands on Experience</li> </ul>	<ul style="list-style-type: none"> <li>• Test (written/oral)</li> <li>• Observation</li> <li>• Blog creation</li> </ul>

**Unit-V: PROFESSIONAL DEVELOPMENT OF BIOLOGY TEACHERS**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Identifies the qualities of a Biology teacher 2. Recognizes the measures for the professional development of Science Teachers.	5.1. Qualities of a Biology teacher 5.1.1 Academic and professional qualification 5.1.2. Professional Competencies – soft skills, Technological skill 5.2. Professional development of Biology teachers 5.2.1 In-service training 5.2.2. Summer institutes	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Discussion</li> <li>• Interactive learning</li> <li>• Seminar</li> <li>• Assignment</li> <li>• Auto instruction</li> </ul>	<ul style="list-style-type: none"> <li>• Tests (written/oral)</li> <li>• Seminar presentation</li> <li>• Assignment evaluation</li> <li>• Report writing</li> </ul>

**SUGGESTED ACTIVITIES (Any Two)**

1. Prepare a concept map on any one topic in Biological Science.
2. Create a blog in the website.
3. Carry out a project in Biology and prepare a project report.
4. Prepare a lesson plan based on models of teaching.

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2. Dash, B.N. (2005). *Psychology of teaching learning process*, New Delhi: Dominant Publishers and Distributors.
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4. Ignacimuthu, S. (2012). *Biotechnology an Introduction*, New Delhi: Narosa publishing house.

5. Joyce., B., & Weil (2000). *Models of teaching (6<sup>th</sup> Edn)*. Boston: Allyn and Bacon.
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8. Radha Mohan (2010). *Innovative Science Teaching for Physical Science Teachers*, New Delhi: PHI Learning Pvt. Ltd.
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10. Sharma .R.A. (2008). *Technological Foundation of Education*, Meerut: R. Lall Book Depot.
11. Singh B.D (2011). *Fundamentals of Genetics*, Ludhiana: Kalyani Publishers.
12. Krishnamacharyalu. V. (2011). *Science Education*, Hyderabad: Neelkamal Publications Pvt Ltd.

#### 📖 SUGGESTED READINGS

1. Agarwal.S.K(2005). *Advanced Environmental Biotechnology*. New Delhi: A.P.H. Publishing Corporation.
2. Brown.T.A. (1999). *Principles of Genetic Engineering*. New York: Wiley.
3. Christopher Howe (2007). *Gene Cloning and Manipulation. Second Edition*, Cambridge University press.
4. Clark, R.C. & R.E. Mayer (2002). *E-learning and the Science of Instruction*, San Francisco: Pfeiffer.
5. Foster, L E.(2003). *Medical Nanotechnology: Science, Innovation and Opportunity*. Pearson Education, Upper Saddle River.
6. Gosh.T.K.(2005).  
*Biotechnology in Environmental Management. Voll & 2*, New Delhi: A.P.H Publishing Corporation.
7. Heiss E. D. Obourn. S., & Hoffman C.W. (1985). *Modern Science Teaching*, New Delhi.
8. Kolb. D. A. (1984). *Experiential Learning; Experience as a source of learning and development*, Englewood cliffs, NJ: Prentice Hall.

Course Code: B4PC1829

Pedagogic Course

**B.Ed. Degree Programme**  
**Semester- IV**  
**EMERGING TRENDS IN ENGLISH EDUCATION**  
 (4 Credits – 120 Hours)

✍ **COURSE OBJECTIVES:**

*On successful completion of the course, the student teachers will be able to:*

1. identify the emerging trends in English language teaching/learning
2. design innovative strategies for effective teaching /learning English
3. familiarize with the concept of teacher as a techno pedagogue

**Unit- I: NEW DEVELOPMENTS IN ENGLISH**

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Analyses the emerging developments in English language teaching	1.1 ICT-enabled techniques for teaching /learning English :Film adaptations of literary texts ,Online Vocabulary games, Online Grammar games, Audio podcasts, Pronunciation, Conversation practice, Online learning critique of poems on websites, Exploring text types Online–Descriptive, Narrative, Expository, Argumentative- Neuro-linguistic Programming	<ul style="list-style-type: none"> <li>• Visual Presentation</li> <li>• e-learning</li> <li>• Small Group Discussion</li> <li>• Seminar</li> </ul>	<ul style="list-style-type: none"> <li>• write- up submitted after analysing emerging e-learning techniques</li> <li>• Role performance analysis</li> <li>• seminar presentation</li> </ul>

**Unit- II: PREPARATION OF INNOVATIVE STRATEGIES**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Analyses the significance of preparing innovative strategies.	2.1 Programmed Instruction- meaning, types (Linear, Branching) preparation of Instructional modules 2.2 Computer Assisted Language Learning 2.3 Preparation of innovative strategies for language learning	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Group Discussion</li> <li>• Presentation of Samples</li> </ul>	<ul style="list-style-type: none"> <li>• QA Session</li> <li>• Role performance analysis</li> </ul>

**Unit- III: TECHNO–PEDAGOGIC CONTENT KNOWLEDGE**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Familiarizes the concepts of teacher as Techno-pedagogue	3.1 Techno – pedagogy : meaning and importance- the inter-relationship between Content Knowledge, Pedagogic Knowledge and Technological Knowledge 3.2 Role and relevance of media in English language teaching	<ul style="list-style-type: none"> <li>• Group Discussion</li> <li>• Demonstrations in Smart Classroom</li> <li>• Assignment</li> </ul>	<ul style="list-style-type: none"> <li>• Assignment Analysis</li> <li>• Test (oral/Written)</li> <li>• Role performance analysis</li> </ul>



	3.3 Technology in English language learning :virtual learning, mobile learning, Blended learning, online learning, blog creation, preparation of digital lesson plans		
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#### Unit- IV: MEDIA AND ENGLISH LANGUAGE LEARNING

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. analyses role and relevance of media in English language teaching and learning	4.1 Role and relevance of media in English language teaching-learning 4.2 Technology in English language learning : 4.2.1 Virtual learning mobile learning, Blended learning online learning , blog creation, preparation of digital lesson plans	<ul style="list-style-type: none"> <li>• Group Discussion</li> <li>• Demonstration</li> <li>• Smart Classroom</li> <li>• Assignment</li> </ul>	<ul style="list-style-type: none"> <li>• Assignment Analysis</li> <li>• Test (oral/Written)</li> <li>• Role performance analysis</li> </ul>

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**Unit – V: BACKGROUND TEXT: PREPARING FOR COMMUNICATION**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
5.1. Develops knowledge in using worksheets, class tests & self - evaluation.	5.1. Using worksheets: supplementing the text book – worksheets for oral practice, reading and writing. 5.2. Class tests: testing grammar, writing & oral tests. 5.3. Self-evaluation Good & bad teaching, categories for observation – helping students to learn.	<ul style="list-style-type: none"> <li>• Assignments</li> <li>• Group work</li> <li>• Peer teaching</li> <li>• Seminar</li> </ul>	<ul style="list-style-type: none"> <li>• Q.A. sessions</li> <li>• Discussion</li> <li>• Vocabulary check</li> </ul>

**SUGESTED ACTIVITIES (Any Two)**

1. Prepare a digitalized lesson plan Submit online.
2. Collect and submit online resources of teaching /learning English.
3. Create a blog for English language learning.
4. Prepare secondary level worksheets

**📖 PRESCRIBED READINGS**

1. The Internet Guide for English Language Teachers Dave Sperling, 1997, Prentice-Hall Regents. (1998 edition also available).Dave Sperling's

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- Internet Activity Workbook Prentice Hall, Regents ISBN 0-13-010325-X, 1999.308.
2. Tim, Boswood. (1997). *New Ways of Using Computers in Language Teaching*, TESOL.
  3. Joy Egbert., & Elizabeth Hanson-Smith. (1999). *CALL Environments: Research, Practice and Critical Issues Internet for English Teaching*.
  4. Adams. M. J. (1990). *Thinking and Learning about Print*. Cambridge, Ma: MIT Press.
  5. Alexander. L. G. (1975). *A first book in comprehension, précis and composition*. Longman: Hongkong.
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  7. Choudhary. N. R. (2002). *English Language Teaching*, Himalaya Publish House, Mumbai.
  8. Cameron, Lynne. (2001). *Teaching language to my young learners*. Cambridge University Press: Cambridge.

#### SUGGESTED READINGS

1. Content-based second language instruction Brinton.D.M., Snow.M. A., & Wesche. M.B. (1989). New York: Newbury.
2. Information & Communication Technologies in ELT Abdul Mahmoud Idrees Ibrahim, *Journal of Language Teaching and Research*, Vol. 1, No. 3, pp.211-214, May, 2010 Academy Publisher ISSN1798-4769.
3. Dave, Pratima. S. (2002). *Communicative Approach to the Teaching of Bachelor of Education English as a Second Language*, Himalaya Publishing House, Mumbai.
4. Kohli. A. L (2001). *Techniques of teaching English in the new millennium*. Dhanpat Rai: NewDelhi.
5. Singh .Y.K (2005). *Teaching of English*. NewDelhi: APH Publishing Corporation.
6. Amritavatli.R. (1999). *Language as a Dynamic Text: Essays on Language, Cognition and Communication*. CIEFL Akshara series. Hyderabad: Allied Publishers.
7. Bond.L. Getat (1980). *Reading Difficulties – Their Diagnosis and Correction*, NewYork: Appleton – Century Crafts.
8. Byrne. D . (1975): *Teaching Writing*, London, Longman.

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*Course Code: B4PC1830*

*Pedagogic Course*

**B. Ed. Degree Programme**

**Semester- IV**

**EMERGING TRENDS IN HISTORY EDUCATION**

(4 Credits – 120 Hours)

 **COURSE OBJECTIVES:**

*On successful completion of the course the student teacher will be able to:*

1. understand the concept of techno-pedagogue in teaching History
2. develop positive attitude towards innovative strategies in teaching / learning History
3. develop skill to undertake research studies in teaching-learning process.
4. develop skill and writing lesson transcripts based on selected models of teaching
5. develop positive attitude towards model instructional strategies in teaching history.
6. apply the various modes of evaluation strategies in History at school level
7. appreciate the programme meant for professional development of history teachers.

**Unit- I: TECHNO PEDAGOGIC CONTENT KNOWLEDGE ANALYSIS**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Consientizes the prospective teachers to become a techno-pedagogue. 2. Familiarizes with instructional module for teaching history content	1.1 Interrelationship between techno-pedagogy and content. 1.2 Scope and purpose of techno pedagogue in history. 1.3 Teacher as a techno -pedagogue in history: Instructional module. 1.4 Professional and institutional growth through network. 1.5 Application of social networking systems.	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Discussion</li> <li>• Visual presentation</li> <li>• Brain Storming</li> </ul>	<ul style="list-style-type: none"> <li>• Test (Oral/ Written)</li> <li>• Q A Session</li> <li>• Report writing</li> </ul>

**Unit- II: EMERGING STRATEGIES IN TEACHING AND LEARNING HISTORY**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Analyses and adopt emerging strategies in teaching History 2. Identifies appropriate strategies to transact the History curriculum.	2.1 Innovative strategies: Need and Importance 2.1.1 Peer Tutoring 2.1.2 Co-operative learning 2.1.3 Problem-based learning 2.1.4 Blended-learning 2.1.5 Brain-compatible learning: i) Mind mapping ii) Concept mapping 2.1.6 Video-conferencing	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Discussion</li> <li>• Seminar</li> <li>• Visual presentation</li> </ul>	<ul style="list-style-type: none"> <li>• Test (Oral/ Written)</li> <li>• Quiz</li> <li>• Q A Session</li> <li>• Seminar presentation</li> </ul>

**Unit- III: RESEARCH IN HISTORY EDUCATION**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Selects the appropriate area for conducting research in History for teaching and learning.	3.1 Research in History: Need and importance for research in History. 3.2 Current trends in teaching History 3.3 Problems faced by History researcher 3.4 History teacher as an action researcher 3.5 Analysis of research outcomes in teaching and learning History.	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Discussion</li> <li>• Brainstorming</li> <li>• Collection of reviews related to classroom teaching</li> </ul>	<ul style="list-style-type: none"> <li>• Test (Oral/ Written)</li> <li>• Q A Session</li> <li>• Report writing</li> </ul>

**Unit- IV: MODELS OF TEACHING HISTORY**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Acquaints with the concept families and selected items of models of teaching 2. Prepares lesson plan based on selected models.	4.1 Models of Teaching - meaning and Concept, descriptions of the model. 4.2 Different families: i) Concept attainment model ii) Advanced organize model iii) Jurisprudential model iv) Inquiry training model	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Discussion</li> <li>• Workshop on Model Lesson plan writing</li> </ul>	<ul style="list-style-type: none"> <li>• Test (Oral/ Written)</li> <li>• Q A Session</li> <li>• Report writing</li> <li>• Evaluating lesson plan</li> </ul>

**Unit- V: PROFESSIONAL DEVELOPMENT OF A HISTORY TEACHER**

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Justifies the need for professional development of History teachers.	5.1 Teaching as a profession: pre-service and in-service programme 5.2 History teacher as a reflective practitioner concept and strategies.	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Discussion</li> <li>• Seminar</li> <li>• Auto learning</li> <li>• Brainstorming</li> </ul>	<ul style="list-style-type: none"> <li>• Test (Oral/ Written)</li> <li>• Q A Session</li> <li>• Evaluation of report</li> </ul>
2. Equip themselves as a reflective practisener	5.3 Various programmes for professional development 5.4 Qualities of a History teacher - Professional Competencies-Soft Skills, Technological Skills.		

**SUGESTED ACTIVITIES (Any Two):**

1. Prepare a self-explanatory note on teacher as a techno pedagogue.
2. Prepare a module of a unit in History and present it to the peers.
3. Design mind maps by selecting a unit for teaching Standard IX.
4. Preparation of lesson transcripts based on any two models of teaching.

**📖 PRESCRIBED READINGS**

1. Aggarwal. J. C. (2003). *Teaching of social studies: A Practical approach*. New Delhi: Prentice Hall India pvt. Ltd.
2. Alexey, Semenov, UNESCO. (2005). *Information and communication technology in schools: A Hand book for teachers*.
3. Bhatt. B. D., & Aggarwal. J. C. (1909). *Educational document in India: Survey of Indian education*. New Delhi: Arya book.

4. Dash. B. N. (1998). *Content cum methods of teaching Social Studies*. Ludhiana: Ralyani Publishers.
5. Josh.P. S.V, Gholkar. S. V. (1983). *History of Modern India*. New Delhi: Chand V Company.
6. Joyce. B.V, Well. M. (2003). *Models of teaching* (5<sup>th</sup>ed). New Delhi: Prentice Hall.
7. Madhu kumar, Indira. (2005). *Internet based distance education*. New Delhi: Global Network.
8. Singh, Gopal. (2004). *Teaching strategies*. New Delhi: APH Publishing Corporation.

### **📖SUGGESTED READINGS**

1. Aggarwal. J. C. (2003). *Teaching of social studies: A Practical approach*. New Delhi: Prentice Hall India pvt. Ltd.
2. Alexey, Semenov, UNESCO. (2005). *Information and communication technology in schools: A Handbook for teachers*.
3. Bhatt. B. D., & Aggarwal. J.C. (1909). *Educational document in India: Survey of Indian education*. New Delhi: Arya book.
4. Dash. B. N. (1998). *Content cum methods of teaching Social Studies*. Ludhiana: Ralyani Publishers.
5. Josh.P. S. V, Gholkar. S.V. (1983). *History of Modern India*. New Delhi: Chand V Company.
6. Joyce.B.V, well. M. (2003). *Models of teaching* (5<sup>th</sup>ed). New Delhi: Prentice Hall.
7. Madhukumar, Indira. (2005). *Internet based distance education*. New Delhi: Global Network.
8. Singh, Gopal. (2004). *Teaching strategies*. NewDelhi: APH Publishing Corporation.



**B.Ed. Degree Programme****Semester-IV****EMERGING TRENDS IN MATHEMATICS EDUCATION**

(4 Credits – 120 Hours)

**COURSE OBJECTIVES:***On successful completion of the course, the student teacher will be able to*

1. familiarize with the concept of techno pedagogy and understand the role of teacher as a techno pedagogue
2. apply the knowledge of various teaching models for teaching mathematics
3. develop skill to undertake research in mathematics education
4. develop understanding of the various innovative strategies in mathematics education
5. comprehend the various strategies for the professional development of Mathematics teacher.

**Unit- I: TECHNO-PEDAGOGIC CONTENT KNOWLEDGE**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Acquaints with the concept of techno-pedagogy	3.1 Concept of Techno pedagogic content knowledge	• Lecture	• Participant observation
2. Familiarizes the ways and means to link technology to pedagogic content knowledge	3.2 Technology in teaching and learning of	• Illustrations	• Online evaluation
3. Identifies the role of teacher as a techno pedagogue	3.3 Web-based Instruction	• Digital presentations	• Evaluation of assignment
4. Develops skill in the preparation of digital lesson plan	3.4 Online learning	• Seminar	
	3.5 Virtual learning	• Discussions	
	3.6 ICT based teaching and learning	• Assignment	
	3.7 Blog creation		
	3.8 Digital lesson plan		

**Unit- II: MODELS OF TEACHING MATHEMATICS**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Identifies various teaching models for teaching Mathematics 2. Proposes lesson plans based on models of teaching	2.1 Meaning and definition of teaching model 2.2 Assumptions regarding teaching models 2.3 Role of Teaching models 2.4 Families of teaching models 2.5 Some typical models- concept attainment model, Advance organizer model, Cognitive Development Model and Glaser’s Basic Teaching Model	<ul style="list-style-type: none"> <li>• Discussions</li> <li>• Electronic visual presentation</li> <li>• Seminar</li> </ul>	<ul style="list-style-type: none"> <li>• Test (oral/ written)</li> <li>• Questioning</li> <li>• paper preparation</li> </ul>

**Unit- III: RESEARCH IN MATHEMATICS EDUCATION**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Selects the appropriate area for conducting research in Mathematics for teaching and learning.	4.2 Importance of research in Mathematics Education 4.3 Current trends in teaching Mathematics 4.4 Action research in Mathematics 4.5 Areas of research in mathematics 4.6 Analysis of research outcomes in teaching and learning Mathematics	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Discussion</li> <li>• Brainstorming</li> <li>• Collection of reviews related to classroom teaching</li> </ul>	<ul style="list-style-type: none"> <li>• Test (Oral/ Written)</li> <li>• QA Session</li> <li>• Report writing</li> </ul>

**Unit- IV: INNOVATIVE STRATEGIES IN TEACHING AND LEARNING  
MATHEMATICS**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Familiarizes the various innovative strategies 2. Develops skill in selecting appropriate innovative strategies to transact the content	2.1 e-learning 2.2 Constructivist learning 2.3 Problem-based learning 2.4 Brain-based learning 2.5 Cooperative learning 2.6 Collaborative learning 2.7 Concept mapping 2.8 Flipped learning 2.9 Blended learning 2.10 Videoconferencing	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Digital presentation</li> <li>• Seminar</li> <li>• Discussion</li> <li>• assignment</li> </ul>	<ul style="list-style-type: none"> <li>• Tests (oral/ written)</li> <li>• Participant observation</li> <li>• Evaluation of assignment</li> </ul>

**Unit- V: PROFESSIONAL DEVELOPMENT OF MATHEMATICS TEACHER**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Analyses the qualities of a Mathematics teacher 2. Develops professional skills needed for teaching Mathematics	5.1 Special qualities and Professional skills of a Mathematics teacher 5.2 In-service education for the teachers 5.3 Role of reflective practices in professional development	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Seminar</li> <li>• Discussions</li> </ul>	<ul style="list-style-type: none"> <li>• Tests</li> <li>• Questioning</li> <li>• Student Reports</li> </ul>

**SUGGESTED ACTIVITIES** (Any two)

1. Prepare a report on development of Mathematics in the 21<sup>st</sup> century.
2. Develop a CAI package in Mathematics.
3. Create a blog for any one lesson in Mathematics.
4. Prepare a lesson transcript based on any one model of teaching.

**📖 PRESCRIBED READINGS**

1. Bruce, Joyce. & Weil, Marsha. (2004). *Models of Teaching*. U.K: Prentice Hall of India.
2. James, Anice. (2005). *Teaching of Mathematics*. New Delhi: Neelkamal Publications.
3. James, Anice. (2006). *Techniques of teaching of Mathematics*. New Delhi: Neelkamal Publications.
4. Kulshreshtha, A.K. (2008). *Teaching of Mathematics*. Meerut: R. Lall Books Depot.
5. Mangal, S.K. (2000). *Teaching of Mathematics*. Ludhiana: R.P. Fadon Prakash Brothers.
6. Sharma, R.D. (2008). *Technological foundation of education*. Meerut: R.Lall Books Depot.
7. Wadhwa, S. (2008). *Modern methods of teaching Mathematics*. New Delhi: Karan Papers.

**📖 SUGGESTED READINGS**

1. Aggarwal, S.M. (2001). *A Course in teaching of Modern Mathematics*. New Delhi: Dhanpat Rai Publishing House.
2. Bhasin, Sonia. (2005). *Teaching of Mathematics - A practical approach*. Mumbai: Himalaya Publishing House.
3. Costello, J. (1991). *Teaching and learning of mathematics*. London: Routledge Publications.
4. Ediger, M., & Rao, D.B. (2000). *Teaching Mathematics successfully*. New Delhi: Discovery Publishing House.
5. Siddiqui, H.S., & Khan, M.S. (2004). *Models of Teaching – Theory and Research*. New Delhi: Ashish Publishing House.
6. Siddiqui, M.H. (2007). *Teaching of Mathematics*. New Delhi: APH Publishing House.

Course Code: B4PC1832

Pedagogic Course

**B.Ed. Degree Programme**  
**Semester-IV**  
**EMERGING TRENDS IN PHYSICAL SCIENCE EDUCATION**

(4 Credits - 120 Hours)

**COURSE OBJECTIVES:**

*On successful completion of the course, the student teacher will be able to:*

1. acquire knowledge about the new development in the field of physical science.
2. understand the models of teaching and its types.
3. apply the emerging strategies of physical science teaching .
4. develop skill in preparing techno pedagogy content in teaching physical science.
5. develop interest in improving professional development of teacher

**Unit- I: NEW DEVELOPMENTS IN PHYSICAL SCIENCE**

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Discusses the different branches of science 2. Reports the emerging field in physical science	1.1 Branches of Science 1.1.1 Fundamental and new branches 1.2 Emergence of interdisciplinary subject 1.2.1 Nanotechnology 1.2.2 Biotechnology 1.2.3 Bioinformatics 1.2.4 Information technology 1.2.5 Geo informatics	<ul style="list-style-type: none"> <li>• Discussion</li> <li>• Lecture</li> <li>• Peer learning</li> </ul>	<ul style="list-style-type: none"> <li>• Test (oral/written)</li> <li>• Report writing</li> </ul>

**Unit- II: MODELS OF TEACHING**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Describes the concept models of teaching 2. Explains the types of teaching model	2.1 Models of teaching - Definition, Fundamental Elements of models of teaching. 2.2 Types of Teaching Model. 2.2.1 Inquiry Training Model 2.2.2 Concept Attainment Model 2.2.3 Advance Organizer Model	<ul style="list-style-type: none"> <li>• Digital presentation</li> <li>• Group discussion</li> <li>• Workshop</li> </ul>	<ul style="list-style-type: none"> <li>• Test (oral/written)</li> <li>• Assignment</li> </ul>

**Unit-III: EMERGING STRATEGIES FOR TEACHING PHYSICAL SCIENCE**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. applies the emerging techniques in teaching 2. Illustrates the various emerging strategies 3. Practices the strategies in the class room	2.1 Collaborative learning 2.2 Co-operative learning 2.3 Problem based learning	<ul style="list-style-type: none"> <li>• Seminar</li> <li>• Group Discussion</li> <li>• Brainstorming</li> <li>• Digital Presentation</li> </ul>	<ul style="list-style-type: none"> <li>• Participant observation</li> <li>• Report writing Mapping</li> </ul>

**Unit- IV: TECHNO PEDAGOGIC CONTENT KNOWLEDGE**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Prepares various digital resources 2. Creates a blog of their own 3. Observes the uses of smart board	3.1 Science teacher as techno pedagogue 3.2 Techno pedagogic skills and competencies 3.3 Digital resources 3.3.1 CD 3.3.2 DVD 3.3.3 Websites 3.3.4 m-learning 3.3.5 Creations of e-portfolio 3.3.6 Web based learning 3.3.7 Blog creation 3.3.8 Designing virtual classroom 3.3.9 Use of smart board.	<ul style="list-style-type: none"> <li>• Lab resources</li> <li>• Discussion</li> <li>• Demonstration</li> <li>• ICT resources</li> </ul>	<ul style="list-style-type: none"> <li>• Observation</li> <li>• Assignment</li> <li>• Material submission</li> </ul>

**Unit- V: PROFESSIONAL DEVELOPMENT OF TEACHERS**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Appraises the teaching profession 2. Identifies the qualities of science teacher 3. Participates in various activities	5.1 Teaching as a profession 5.2 Pre-service and in-service programme 5.3 Role of reflective practices on professional development 5.4 Qualities of a science teacher 5.4.1 Professional competencies 5.4.2 Soft skills 5.4.3 Technological skills.	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Discussion</li> <li>• Debate</li> </ul>	<ul style="list-style-type: none"> <li>• Participant observation</li> <li>• Report based on debate</li> </ul>



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**SUGGESTED ACTIVITIES** (Any two):

1. Prepare a module and present it through smart board.
2. Design a content in physical science based on mapping strategies.
3. Prepare a Blog in the website.
4. Develop a lesson plan in physical science based on models of teaching.

**📖PRESCRIBED READINGS**

1. Radha, Mohan (2010). Teaching of physical science. New Delhi: Neelkamal Publishers.
2. Sharma.R.C. (2006). Modern Science Teaching. New Delhi: Dhanpat Rai Publications.
3. Gupta.S.K. (1985). Teaching of Physical Science in Secondary Schools. Sterling Publication Pvt. Limited.
4. Vanaja. M. (2010).Educational technology. New Delhi: Neelkamal Publishers.
5. Sivarajan, K ., & Faziluddin. A. (2006). Science Education, Calicut University, Central Co.

**📖SUGGESTED READINGS**

1. Mishra.R. C (2008). Lesson Planning. NewDelhi: APH Publishing Corporation.
2. Panner , Selvam. A. (1976).Teaching of Physical Science, Government of TamilNadu.
3. Das.R.C. (1985). Science teaching in schools. New Delhi: Sterling Publishers.
4. Joseph.T. T. (1982). Modern trends in science education. (2<sup>nd</sup> Ed.). Kottayam, Kerala.
5. Mathew.T.K ., & Mollykutty.T. M. (2011). Science education: Theoretical bases of teaching and pedagogic analysis. Chenganoor: Rainbow Book Publishers.
6. Bhatia.K.K. (2001). Foundations of teaching learning process. Ludhiana: Tandon Publication.
7. Mangal. S. K., & Uma Mangal. (2009). Essentials of Educational Technology. New Delhi: PHI Learning Pvt. Ltd.

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*Course Code: B4EC1833*

*Elective Course*

**B.Ed. Degree Programme**  
**Semester-IV**  
**EARLY CHILDHOOD CARE AND EDUCATION**

(4 Credits – 120 Hours)

 **COURSE OBJECTIVES:**

*On the successful completion of the course, the student teacher will be able to:*

1. develop understanding of the nature, scope and significance of early childhood education.
2. identify the contribution of select educational thinkers in the area of ‘Early Childhood Education’.
3. understand the different aspects of development during early childhood period.
4. develop skill in applying the different techniques of teaching pre-schoolchildren.
5. Acquire skill in assessing children’s development and learning

**Unit- I: INTRODUCTION TO EARLY CHILDHOOD CARE AND EDUCATION**

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Familiarizes the nature, scope and significance of Early Childhood Education. 2. Acquaints with the development of Early Childhood Education in India 3. Familiarises the policies in ECCE in India	1.1 Early Childhood Care and Education- Concept, Need and objectives of ECCE 1.2. Early Childhood Education trends in India-public, private and voluntary sector initiatives in India 1.3. Issues and concerns of ECCE in India 1.4. Policies in ECCE in India- National Focus Group on ECCE (2006) The National Policy for Children (2013) National Early Childhood Care and Education (ECCE) Policy(2013) National ECCE curriculum framework	<ul style="list-style-type: none"> <li>• Introductory Lecture</li> <li>• Group discussion</li> <li>• Assignment</li> <li>• Brainstorming</li> <li>• Seminar and discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Assignment evaluation</li> <li>• Test (Written/ Oral)</li> <li>• Participation in group discussion</li> </ul>

**Unit- I1: CONTRIBUTIONS OF EDUCATIONAL THINKERS TO EARLY CHILDHOOD CARE AND EDUCATION**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Develops an insight into the contribution of various educational thinkers to the cause of Early Childhood Education	2.1 Contributions of western thinkers – Rousseau, Froebel, McMillan sisters, Montessori, Piaget, Vygotsky 2.2. Indian thinkers – , Gijubhai Badeka, Mahatma Gandhi , Tarabai Modak, and Jiddu Krishnamurty	<ul style="list-style-type: none"> <li>• Introductory lecture</li> <li>• Group discussion</li> <li>• Assignment</li> <li>• Brainstorming</li> <li>• Seminar and discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Assignment evaluation</li> <li>• Test (Written/ Oral)</li> <li>• Participation in group discussion</li> </ul>

**Unit- III: DEVELOPMENT DURING EARLY CHILDHOOD**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Realizes the different aspects of child development 2. Examines the role of pre-school in promoting harmonious development of children.	3.1. Development during early childhood period - Physical, motor, cognitive, social, emotional, language and moral development. 3.2. Factors influencing early childhood development. 3.3. Role of early childhood centres in promoting harmonious development of Children.	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Seminars</li> <li>• Interactive session</li> <li>• Discussion</li> <li>• Assignment</li> </ul>	<ul style="list-style-type: none"> <li>• Preparation of learning materials</li> <li>• Assignment evaluation</li> <li>• Test (Written/Oral)</li> </ul>

**Unit- IV: ORGANIZING ECCE PROGRAMME**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Develops insight in Planning programs for children	<p>4.1. Design of an ECCE centre– Building plan, different areas in an ECCE centre, Safety precautions,.</p> <p>4.2 Planning programs for Children – principles and factors of program planning. (yearly, monthly, weekly and daily.)</p>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Field visit</li> <li>• Development of weekly /daily schedules</li> <li>• Seminar and discussions</li> <li>• Discussion</li> <li>• Visual presentations</li> <li>• Peer learning</li> </ul>	<ul style="list-style-type: none"> <li>• Report writing</li> <li>• Assessing weekly / daily schedule</li> <li>• Assignment evaluation</li> <li>• Test (Written/Oral)</li> <li>• Assessing tools</li> </ul>

**Unit- V: PEDAGOGIC APPROACHES TO ECCE PROGRAMME**

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Becomes acquaint with the different techniques of teaching children 2. Imbibes skill in assessing pre- school children	5.1 Strategies for involvement of children in learning activities- Sensory training, Rhymes, Storytelling, Dramatization, Puppetry, Nature walk and play way method 5.2 Evaluation of children's development and learning - Principles of assessment and reporting 5.3 Informal assessment Strategies - observation, portfolio, checklist, activity sample & report card. 5.4. Role of caregiver/ ECCE Teacher- partnership with parents and family	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Field visit</li> <li>• Observation of Programs</li> <li>• Seminar and discussions</li> <li>• Role play</li> <li>• Discussion</li> <li>• Demonstration</li> <li>• Visual presentations</li> <li>• Peer learning</li> </ul>	<ul style="list-style-type: none"> <li>• Assignment evaluation</li> <li>• Test (Written/Oral)</li> <li>• Assessing tools</li> </ul>

**SUGGESTED ACTIVITIES (Any Two)**

1. Prepare materials and activities for any two aspects of development.
  - 1.1 Motor development (gross motor skills and fine motor skills)
  - 1.2 Cognitive development
  - 1.3 Language development

## 1.4 Social development

2. Prepare a report on daily routine of an Early childhood Education Centre.
3. Prepare booklets-stories (5), Rhymes (5) with illustrations.
4. Prepare source file on different types of creative activities for children.

**📖 PRESCRIBED READINGS**

1. Aggarwal.J.C., .& Gupta.S. (2007). *Early Childhood Care and Education-Principles and Practices*. New Delhi: Shirpa Publications.
2. Devadhas, P. Rajammal. (1984). *A Text Book on Child Development*. New Delhi: MC Millan India Ltd.
3. Hurlock, Elizabeth. B. (2001). *Child Growth and Development*. NewDelhi: Tata Mc Graw Hill publishing company.
4. Kaul, Vinetha. (2001). *Early Childhood Education Programme*. New Delhi: National Council of Educational Research and Training.
5. Kaul.V ., & Sankar.D. (2009).*Early Childhood Care and Education in India: Mid-Decade Assessment*, NUEPA.
6. Kon, Ruth.(1972). *The Exploring child*. Mumbai: Orient Longman Ltd.
7. Mohanthy,Jaganath., & Bhagyadhar, Mohanthy. (2000). *Early Childhood Care and Education*. New Delhi: Deep and Deep Publication.
8. Montessori.M.(1962).*The Discovery of the Child*. Chennai: Kalakshetra Publications.
9. National Curriculum Framework. (2005).*Early childhood care and Education*.NewDelhi: NCERT.
10. Pankajam. G. (1994). *Pre.-school education – Philosophy and Practice*. Ambalka: The Indian publication.
11. Santrock.J.W. (2010). *Child Development: An Introduction*. New Delhi: McGraw-Hill Publication Company.
12. Swaminathan, Mina . (1995). *Playing to Learn, a Training Manual for Early Childhood Education*.M.S.Swaminathan Research Foundation.
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1. Austin, Gilbert. R. (1976). *Early childhood education: An international perspective*. New York: Academic Press.
2. Banta.T. (1966). *A rethese sreallya Montessori method, Columbus, Ohio: Ohio Psychological Association and Ohio Psychiatric Association*. David.T. (1989). *Teaching Young Children*. New Delhi:Sage.
3. Essa.E.(1990). *Introduction to early child hood education*. New York: Delimar.
4. Kaul.V. ,& Bhatnagar.R. (n.d). *Early Childhood Education: A Trainers' Handbook*. New Delhi: NCERT.
5. Kaul.V.et al.(2004). *Reaching out to the Child*. NewDelhi: Oxford UniversityPress.
6. Kaul.V., & Sankar.D (2009). *Early Childhood Care and Education in India: Mid-Decade Assessment: NUEPA*.
7. Nisha.M.(2006). *Milestones of child development*. Delhi: Kalpazz Publication.
8. Shanmugavelayudham.K., & Bhuvanewari.(2003). *The 'must'fo rNursery Education*. TN- FORCES.
9. Soni. R. (2014). *Every Child Matters*. NewDelhi: NCERT.
10. Swaminathan.M.(1998). *TheFirstFiveYears: A criticalperspectiveonEarlyChildhoodCareand Education in India*. New Delhi: Sage publications.
11. Swaminathan. M., & Daniel. P. (2000). *Activity-Based Developmentally Appropriate Curriculum for Young Children*. Chennai: IAPE.
12. Vergas-Baron. E. (2005). *Planning Policies for Early Childhood Development: Guidelines for Action*. Paris: UNESCO.



**B.Ed. Degree Programme**  
**Semester-IV**  
**EDUCATION OF ADOLESCENTS**

(4 Credits -120 Hours)

**✍ COURSE OBJECTIVES:**

*On the successful completion of the course, the student teacher will be able to:*

1. develop an understanding of the needs and concerns of adolescents
2. develop understanding about the content and scope of Adolescence Education Programme.
2. Acquaint with the pedagogical approaches of adolescence education programme
3. analyze the life skill Education for adolescents, approaches, strategies and modus operandi
4. develop knowledge and sensitivity on matters related to reproductive health, sex and sexuality

**Unit- I: CONCERNS AND CHALLENGES DURING ADOLESCENCE**

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Familiarises with the development during adolescence 2. Identifies the needs and concerns of adolescents 3. Familiarises with the theories of Adolescence	1.1 Development during Adolescence 1.1.1. Physical, cognitive, social and emotional development 1.1.2. Needs, concerns and realities of adolescents in India. 1.1.3. Psycho-physiological problems - Depression, Anxiety, Suicide 1.2. Theories of Adolescence: Erick Erikson, Jean Piaget and Lev Vygotsky	<ul style="list-style-type: none"> <li>• Lecture /briefing</li> <li>• Group discussion</li> <li>• Assignment</li> <li>• Brainstorming</li> <li>• Case study</li> <li>• Seminar and discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Oral questions</li> <li>• Assignment evaluation</li> <li>• Case study report</li> <li>• Test (written/ oral)</li> <li>• Observation of class room behaviour</li> <li>• Student's reflective reporting</li> <li>• Observation of students/ classes</li> </ul>

**Unit-II: ADOLESCENCE EDUCATION PROGRAMME**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
<p>1. Familiarizes the concept of adolescence education and its objectives, guiding principles and scope</p> <p>2. Analyzes the Adolescence Education Program, approaches, strategies and implementation</p>	<p>2.1. Adolescence Education Program(AEP)</p> <p>2.1.1. Objectives, Content and Scope</p> <p>2.2.2. Role of Social Agencies in Adolescence Education- School, Family, Media, Community</p> <p>2.2.3 Capacity building for prospective teachers in adolescence education</p>	<ul style="list-style-type: none"> <li>• Lecture /briefing</li> <li>• Group discussion Assignment</li> <li>• Brainstorming</li> <li>• Case study</li> <li>• Seminar and discussion</li> <li>• Role play</li> </ul>	<ul style="list-style-type: none"> <li>• Oral questions</li> <li>• Assignment evaluation</li> <li>• Case study report</li> <li>• Test (written/ oral)</li> <li>• Observation of class room behaviour</li> <li>• Student's reflective reporting</li> </ul>

**Unit-III: PEDAGOGICAL APPROACHES TO ADOLESCENCE EDUCATION**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Familiarises the pedagogical approaches to adolescence education 2. Equips with different innovative strategies for adolescence education	Pedagogical Approaches to Adolescence Education -Case studies and Critical Incidents, Brainstorming, Role-playing, Buzz groups, Gaming, Value clarifications, Question Box, Discussions and Debates, Puppet shows, Video shows. situation analysis	<ul style="list-style-type: none"> <li>• Lecture /briefing</li> <li>• QA session</li> <li>• Student observation and reporting</li> <li>• Assignment</li> <li>• Seminar</li> <li>• Peer learning</li> <li>• Group discussion</li> <li>• Role play</li> </ul>	<ul style="list-style-type: none"> <li>• Test (written/oral)</li> <li>• Assignment evaluation</li> </ul>

**Unit- IV: LIFE SKILLS EDUCATION FOR ADOLESENTS**

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Familiarises the concept of life skills education 2. Equips with different innovative strategies for life skills education to adolescents 3. Examines the role of life skills education in adolescent behaviour	2.1 Need, concept and significance of life skills education 2.2 Core life skills, development of life skills 2.3. Imparting life skills education – Role play, ,Debate, case study, Quiz, Group discussion 2.4. Role of life skills education in adolescent behaviour, Teacher student relationship.	<ul style="list-style-type: none"> <li>• Lecture /briefing</li> <li>• QA session</li> <li>• Assignment</li> <li>• Seminar</li> <li>• Peer learning</li> <li>• Group discussion</li> <li>• Role play</li> </ul>	<ul style="list-style-type: none"> <li>• Test (written/oral)</li> <li>• Assignment evaluation</li> </ul>

**Unit- V: REPRODUCTIVE HEALTH AND FAMILY LIFE EDUCATION**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
<p>1. Identifies the basic elements of reproductive health during adolescence</p> <p>2. Internalizes the need for sexual and health education of adolescents</p> <p>3. Realizes the need for strengthening healthy family relationship</p>	<p>3.1 Sexual and reproductive health of adolescents</p> <p>3.2. Sexual health education – need and importance, objectives, role and responsibility of family and school.</p> <p>3.2.1. STD’s and HIV/AIDS- Causes, preventive measures</p> <p>3.3. Gender-Based issues</p> <p>3.4. Family life education- Meaning and concept, objectives</p> <p>3.4.1. Role of home and school in family life education</p> <p>3.4.2. Maintaining family relationships</p>	<ul style="list-style-type: none"> <li>• Lecture /briefing</li> <li>• Group discussion</li> <li>• Extension and field outreach</li> <li>• Assignment</li> <li>• Seminar</li> <li>• Debate</li> <li>• Peer learning</li> </ul>	<ul style="list-style-type: none"> <li>• Class test</li> <li>• Assignment evaluation</li> <li>• Observation of classes</li> <li>• Field level observation and reporting</li> </ul>

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**SUGGESTED ACTIVITIES (Any Two)**

1. Detailed study of adolescent problems and issues in the school selected for practice teaching.
2. Organization of adolescence education session in the school selected for practice teaching.
3. Study and report adolescents in drug rehabilitation centers.
4. A detailed case study on child abuse victims

**📖 PRESCRIBED READINGS**

1. Arora, Pankaj . (2008). *Sex Education in Schools*. New Delhi: Ocean Books Pvt Ltd.
2. CBSE. (1999). *Population and Adolescent Education–A Training Package*. New Delhi.
3. Choudhary. G. B. (2014). *Adolescence Education*. New Delhi: PHI Learning Pvt. Limited.
4. Department of Education & State AIDS Control Society .(2005). *YUVA – School Adolescence Education Programme – Handbook for Teachers*. New Delhi.
5. Harrison, Jennifer. K., (2000). *Sex Education in secondary Schools*. Buckingham Philadelphia: Open University Press.
6. MHRD (2004). *Life Skills Modules, Adolescence Education Programme*. New Delhi: MHRD, NACO & UNICEF.
7. NCERT (2005). *Adolescence Education in Schools – Life skills Development General Framework; National Population Education Project*. New Delhi: Department of Education in Social Science and Humanities.
8. Prabhu, Vithal, (1998). *Sex Education to Adolescence: With Guidelines for Program/ Curriculam*; Mumbai: Majestic Prakashan.
9. Sahni. K. (2014). *Problems of Adolescence*. Delhi: Parent Teacher Association of India.

10. Sharma, Neeraja. (2011). *Understanding Adolescents*. Delhi: National Book Trust of India.
11. Verma, Suman., & Saraswathi. T. S. (2002). *Adolescence in India* .New Delhi: Rawat Publications.

### **📖 SUGGESTED READINGS**

1. Harrison, Jennifer. K. (2000). *Sex Education in secondary Schools*; Buckingham Philadelphia: Open University Press.
2. UNESCO (1991). *Adolescence Education*. Bangkok: UNESCO Principal Regional Office for Asia and the Pacific.
3. UNESCO (2001). *Life skills on Adolescence Education Reproductive Health*. Bank ok: UNESCO Principal Regional Office for Asia and the Pacific.
4. MHRD, NACO and UNICEF (2005). *Growing up in a World with HIV/AIDS*, FAQ Booklets for students, Adolescence Education Programme.
5. NCERT & NACO (1994). *AIDS Education in School: A Training Package*. New Delhi: NCRT.
6. NCERT.(2005). *Adolescence Education in Schools - Life skills Development General Frame work*. New Delhi: Department of Education in Social Science and Humanities.



Course Code: B4E C1835

Elective Course

**B .Ed. Degree Programme**  
**Semester-IV**  
**ENVIRONMENTAL EDUCATION**  
 (4 Credits-120 Hours)

**✍ COURSE OBJECTIVES:**

*On successful completion of the course, the prospective teachers will be able to:*

1. acquaint with the concept, need, principles and scope of environmental education.
2. analyse the various issues related to natural resources.
3. appraise the policies and legislations towards environmental management.
4. develop a positive attitude towards environmental conservation.
5. appreciate the importance of environmental education in school curriculum.
6. imbibe necessary skills to participate actively in community oriented environmental activities.

**Unit- I: FUNDAMENTALS OF ENVIRONMENTAL EDUCATION**

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Explains the concept of environmental education 2. Identifies the principles and Scope of Environmental education 3. Recognises the approaches of teaching Environmental Education	1.1 Environmental Education: Historical background, Concept, Meaning and Definition 1.2 Need, Objectives, Principles and Scope 1.3 Approaches of teaching Environmental Education (Multidisciplinary and Interdisciplinary).	<ul style="list-style-type: none"> <li>• Small group discussion</li> <li>• Digital presentation</li> <li>• Meaningful verbal discourse</li> <li>• Peer learning</li> <li>• Self study</li> <li>• Reflective practices</li> </ul>	<ul style="list-style-type: none"> <li>• Assignment</li> <li>• Document analysis</li> <li>• Report</li> <li>• QA session</li> <li>• Observation</li> <li>• Test</li> </ul>

**Unit-II: NATURAL RESOURCES AND ASSOCIATED PROBLEMS**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Appreciates the various natural resources 2. Analyses the problems associated with natural resources 3. Recognises the role of an individual in conservation of natural resources.	2.1 Natural resources – definition, meaning, importance and types (Forest, Land, Water Mineral, Food and Energy resources) 2.2 Problems associated with different types of natural resources and their prevention 2.3 Role of an individual in conservation of natural resources.	<ul style="list-style-type: none"> <li>• Narrative expression sessions</li> <li>• Role Play/Skit</li> <li>• Field visit</li> <li>• Multimedia approach.</li> <li>• Cooperative learning</li> <li>• Invited talk</li> </ul>	<ul style="list-style-type: none"> <li>• Participation in group activity</li> <li>• Report</li> <li>• Quiz.</li> <li>• Document</li> <li>• Test</li> </ul>

**Unit-III: POLLUTION AND MANAGEMENT INITIATIVES**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Recognises the different types of pollution 2. Predicts the control measures for pollution 3. Explains environmental management and its need 4. Outlines the initiatives for environmental management	3.1 Pollution : Definition, types (Air, Water, Soil, Noise, Thermal, nuclear and light pollution) 3.2 Effects and control measures of each types. 3.3 Management of environment: Definition and need 3.4 Initiatives: Environmental legislation, Environmental Impact Assessment, Environmental movements in India, pollution control board and Green Tribunals	<ul style="list-style-type: none"> <li>• Lecture cum discussion</li> <li>• Blog Searching</li> <li>• Peer instruction</li> <li>• Digital Presentation</li> <li>• Seminar</li> <li>• Small group discussion</li> <li>• Brainstorming</li> </ul>	<ul style="list-style-type: none"> <li>• Blog Posts</li> <li>• Class test</li> <li>• Document analysis</li> <li>• Seminar presentations</li> <li>• Test</li> </ul>

**Unit-IV: SUSTAINABLE DEVELOPMENT AND PRACTICES**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Explains the concept of Sustainable Development, Need and Principles. 2. Appraises sustainable environmental practices	4.1 Sustainable Development: Meaning, Need, Guiding Principles. 4.2 Sustainable Environmental Practices: Rain water Harvesting, Mangroves Management, Solid Waste Management	<ul style="list-style-type: none"> <li>• Lecture/briefing</li> <li>• Field visit</li> <li>• Multimedia approach.</li> <li>• Cooperative learning</li> <li>• Assignment</li> <li>• Peer learning</li> </ul>	<ul style="list-style-type: none"> <li>• Report</li> <li>• Quiz.</li> <li>• Document</li> <li>• QA session</li> <li>• Observation</li> <li>• Assignment evaluation</li> </ul>

**Unit-V: ENVIRONMENTAL EDUCATION IN SCHOOL CURRICULUM**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Infers Environmental Education at different levels of school Education 2. Assess the innovative methods of teaching EE at schools 3. Appreciates the role of school in environmental conservation 4. Recognises the role of NCERT ,teachers and media in promoting Environmental Education 5. Examines the role of information technology in environmental and human health. 6. Prepares evaluation strategies for Environmental Education	5.1 Environmental Education at different levels of school Education 5.2 Innovative methods of teaching Environmental Education 5.3 Role of school in environmental conservation 5.4 Role of NCERT, teachers and media in promoting Environmental Education 5.5 Role of information technology in environmental and human health. 5.6 Evaluation in Environmental Education-Meaning, aims, different types of tests for assessment	<ul style="list-style-type: none"> <li>• Lecture cum discussion</li> <li>• Brainstorming</li> <li>• Blog Searching</li> <li>• Peer instruction</li> <li>• Poster Presentation</li> <li>• Assignment Seminar</li> <li>• Auto instruction</li> <li>• Invited lectures</li> </ul>	<ul style="list-style-type: none"> <li>• Blog Posts</li> <li>• Class test</li> <li>• Document analysis</li> <li>• Participant observation</li> <li>• Posters</li> <li>• Seminar presentations</li> </ul>

**SUGGESTED ACTIVITIES (Any Two)**

1. Prepare a scrap book on issues related to the environment
2. Visit a place of severe environmental pollution in your locality, analyse the causes of pollution and suggest control measures.

3. Conduct a Life Cycle Assessment of any item/commodity of daily use and prepare a report.
4. Prepare a time-line chart on environmental policies and programmes in India

### PRESCRIBED READINGS

1. Bhalla. S. C., & Khanna. H. (2007). *Environmental Education*, New Delhi: Regal Publication.
2. Bharucha. E. (2005). *Text book of Environmental Studies*, University Press.
3. Capra.F(1999). *Eco-literacy: The challenge for next century*. Liver pool Schumacher Lectures.
4. Dani.H. M.(1986). *Environmental Education*, Chandigarh: Publication Bureau, Punjab University.
5. Joseph Catherine, *Methods of Environmental Education* – Hyderabad: Neel Kamal Publications.
6. Krishnamachayulu.V., & G.S. Reddy, *Environmental Education*, Hyderabad: Neelkamal publications.
7. Kumar.A. (2009).. *A text book of environmental science*. NewDelhi: APH Publishing Corporation.
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9. Reddy. P. K & Reddy, N. D. (2001). *Environmental Education*. Hyderabad: Neelkamal publications.
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12. Singh.Y. K. (2009). *Teaching of environmental science*. New Delhi: APH Publishing Corporation.
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1. Joy.P ., & Neal.P. (1994). *The handbook of environmental education*: London, New FetterLane.
2. Goleman.D. (2010). *Ecological Intelligence*, Penguin Books, London136.
3. Odum. E. P. (1971). *Fundamentals of Ecology* WB Saunders.

4. Speth., & James. G. (2006). *Global Environmental challenges: Transition to a sustainable world*, Orient Longmann.
5. Firor, John., & Judith .E.J. (2003). *Crowded Green House*, University Press.
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7. Gardner. H.S (2006). *Frames of Mind*. Harvard University Press.
8. UNESCO (2005). *Draft International Implementation Scheme of the United Nations Decade of Education for Sustainable Development*. Doc. 171 ex/7. Paris. UNESCO.
9. UNESCO (2006-b). *Framework for the UNDESD International Implementation Scheme*. ED/ DESD/2006/PI/1. Paris, UNESCO.

Course Code: B4EC1836

Elective Course

**B.Ed. Degree Programme  
Semester-IV**

**LIBRARY AND INFORMATION SCIENCE IN EDUCATION  
(4 Credits-120 Hours)**

**📖 COURSE OBJECTIVES:**

*On successful completion of the course, the student teacher will be able to:*

1. familiarise emerging concepts and trends of libraries in education.
2. internalise the role and responsibilities of academic libraries in sharing information sources.
3. analyse the different types of information services
4. acquire the skills related to information literacy and retrieval techniques.
5. understand the importance of resource sharing and library networks

**Unit- I: EMERGING CONCEPT OF LIBRARIES IN EDUCATION**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Analyses the development of library from ancient days to contemporary era 2. Impart the knowledge about the types of libraries	1.1 Library–meaning, definition 1.2 Transformation of manuscript to digital and virtual libraries 1.3 Types of Library 1.3.1. Public Library 1.3.2. Academic Library 1.3.3. Special Library 1.3.4. Digital Library 1.3.5. Virtual library	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Assignment</li> <li>• Group Discussion</li> <li>• QA Session</li> </ul>	<ul style="list-style-type: none"> <li>• Assignment evaluation</li> <li>• Test (written/oral)</li> <li>• Seminar presentation</li> </ul>

**Unit- II: INFORMATION SOURCES**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Familiarises with academic libraries Information Sources and their types 2. Identifies e- resources and their effectiveness	2.1 Information Sources– definition 2.2 Types of Information Sources 2.2.1 Documentary Sources 2.2.1.1 Primary Sources 2.2.1.2 Secondary Sources 2.2.1.3 Tertiary Sources 2.2.2. Non Documentary Sources 2.3 Electronic/Web Learning Resources 2.3.1 E-journals 2.3.2 E-books 2.3.3 Scopus, web of science and Eric databases	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Group discussion</li> <li>• Assignment</li> <li>• QA session</li> <li>• College Library Visit and Classification of Sources</li> </ul>	<ul style="list-style-type: none"> <li>• Assignment evaluation</li> <li>• Test (written/oral)</li> <li>• Seminar presentations</li> </ul>



**Unit- III: INFORMATION SERVICES**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Familiarises the various types of information services	3.1 Types of Information services 3.1.1 Current Awareness Service 3.1.2 Selective Dissemination of Information 3.1.3 Reprographic Service 3.1.4. Translation Service 3.1.5. Indexing and Abstracting Service	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• QA session</li> <li>• Digital and visual presentation</li> <li>• Group Discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Quiz</li> <li>• Test(Written / Oral)</li> <li>• Assignment Evaluation</li> </ul>

**Unit- IV: INFORMATION LITERACY AND RETRIEVAL TECHNIQUES**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Familiarises the role of user education and information literacy 2. Acquires Information Communication Technology skills on information retrieval 3. Acquires with the knowledge of writing American Psychological Association Style Manual	4.1 User Education and Information Literacy 4.2 Role of Information Communication Technology in modern libraries 4.3. Search engine and its types 4.3.1. Boolean operators and its role in information retrieval. 4.4. Information Retrieval Techniques 4.5 Bibliography- definition 4.6 Writing American Psychological Association Style Manual	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Assignment</li> <li>• Digital and visual presentation</li> <li>• Group discussion</li> <li>• College e-library visit: demonstration/ practical</li> </ul>	<ul style="list-style-type: none"> <li>• Assignment evaluation</li> <li>• Test (written/ oral)</li> <li>• Seminar presentations</li> </ul>

**Unit- V: RESOURCE SHARING AND LIBRARY NETWORKING**

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Defines the definition, need and objectives of resource sharing	5.1. Resource Sharing- definition, need and objectives	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Group discussion</li> <li>• College e-library visit: demonstration /practical</li> </ul>	<ul style="list-style-type: none"> <li>• Assignment evaluation</li> <li>• Test (written/Oral)</li> <li>• QA session</li> <li>• Seminar presentation</li> </ul>
2. Realizes the importance of internet in information transfer	5.2 Role of Internet in information transfer		
3. Explains the various types of library networks in India	5.3. Types of Library Networks in India 5.3.1 Inflib net-N-list 5.3.2. ERNET 5.3.3. DELNET 5.3.4. CALIBNET 5.3.5. MALIBNET		

**SUGGESTED ACTIVITIES (Any Two)**

1. Prepare an abstract for an article relevant to your area of specialization.
2. Prepare bibliography for American Psychological Association style manual.
3. Documentation and compilation of website addresses relevant to the area of teacher education.
4. Write a review on any five books you read

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2. Chakrabarti.B. (1993). *Library and information society*. Calcutta: World press.
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**B.Ed. Degree Programme**  
**Semester–IV**  
**PHYSICAL AND HEALTH EDUCATION**  
 (4 Credits - 120 Hours)

**✍ COURSE OBJECTIVES:**

On successful completion of the course, the student teacher will be able to

1. acquaint with the meaning, aims and objectives of Physical Education
2. acquire knowledge of health and safety education
3. develop understanding about the healthy food for healthy life

**Unit- I: INTRODUCTION TO PHYSICAL EDUCATION**

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Identifies the meaning, aim and objectives of physical education. 2. Identifies the physical fitness components and the modes of developing them	<b>Physical Education</b> 1.1 Meaning ,Definition 1.2 Aim and Objectives 1.3 Need and importance 1.4 Methods of teaching physical activities 1.5 Intramural and Extramural Competitions – Meaning , Definition. 1.6 Knock-out and League tournament 1.7 Method of drawing fixtures-Merits and Demerits. <b>Physical Fitness</b> 1.8 Definition, Components and Health related Physical fitness 1.9 Activities for development of physical fitness 1.10Components and benefits of Physical fitness	<ul style="list-style-type: none"> <li>• Briefing/Lecture</li> <li>• Visual Presentation</li> <li>• Lecture</li> <li>• Group Discussions/ activities</li> <li>• Demonstration and practice</li> </ul>	<ul style="list-style-type: none"> <li>• Test (Oral/ written)</li> <li>• Projects,</li> <li>• Assignments</li> </ul>

**Unit- II: HEALTH EDUCATION**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Identifies the fundamentals of health education 2. Values the importance of health education	<b>Health education</b> 2.1. Meaning, Definition, Importance and scope of health education 2.2. Aims and objectives of health education 2.3. Methods of imparting Health Education in School –Health instruction –Health Service – Health Supervision 2.3 Factors affecting health 2.4 Effects of exercise on muscular, circulatory, Digestive and Nervous systems. 2.5 Hygiene – Health hazards 2.6 Personal and Community hygiene.	<ul style="list-style-type: none"> <li>• Briefing/Lecture</li> <li>• Demonstration and practice</li> <li>• Presentations in small groups</li> <li>• Debate and Discussion</li> <li>• Survey related to safety education in a near by town/village</li> <li>• Theoretical presentation</li> </ul>	<ul style="list-style-type: none"> <li>• Test (Oral / written)</li> <li>• Health practices of students</li> <li>• Participant observation</li> <li>• Reports</li> <li>• Visit to primary health centre and reporting</li> </ul>

## Unit- III: POSTURE, SAFETY EDUCATION AND FIRST-AID

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Values the importance of posture 2. Identifies the importance of Safety education 3. Acquaints with the significance of first-aid	<b>Posture</b> 3.1 Meaning, and Importance of posture 3.2.Types of posture 3.3 Kyphosis, Lordosis, Scoliosis , Knock-Knee and Flat-Foot. 3.4 Causes and Prevention <b>Safety Education</b> 3.5 Significance and meaning 3.6 Importance of safety education 3.7 Road Safety , School, College ,Classroom and Play ground <b>First – aid</b> 3.8Meaning ,Definition 3.8 Principles, Need and importance of first-aid 3.9 First-aid in different cases 3.10 Management of fracture, Dislocation, Wounds, Sprain, Strain, Cramp, Fainting, Burns, etc.	<ul style="list-style-type: none"> <li>• Briefing/Lecture</li> <li>• Demonstration and practice</li> <li>• Presentations in small groups</li> <li>• Debate and Discussion</li> <li>• Survey related to safety education in a near by town/village</li> <li>• Theoretical presentation</li> </ul>	<ul style="list-style-type: none"> <li>• Test (Oral / written)</li> <li>• Health practices of students</li> <li>• Participant observation</li> <li>• Reports</li> <li>• Visit to primary health centre and reporting</li> </ul>

**Unit- IV: FOOD AND NUTRITION**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Values the importance of food 2. Familiarizes food and nutrition	<b>Food and Nutrition</b> 4.1 Understanding Nutrition 4.2 Micro and Macro Nutrients 4.3 Carbohydrates, Protein, Fat, Vitamins (Fat soluble and water soluble), Minerals, Water & Fiber 4.4 Balanced diet 4.5 Vitamin deficiency diseases 4.6 Malnutrition. 4.7 Guidelines for food Selection 4.8 Diet for Obesity and underweight	<ul style="list-style-type: none"> <li>• Narrative expressions</li> <li>• Survey</li> <li>• Debate</li> <li>• QA session</li> <li>• Experts Talk</li> <li>• Demonstration</li> <li>• Digital Presentations</li> <li>• Group activity</li> <li>• Verbal presentation</li> <li>• Preparation of database</li> </ul>	<ul style="list-style-type: none"> <li>• Test (Oral/ Written) reports</li> <li>• Quiz</li> <li>• Group presentation</li> <li>• Discussions</li> <li>• Tests</li> <li>• Awareness campaign.</li> </ul>

**Unit- V: COMMUNICABLE DISEASE AND LIFESTYLE DISORDER**

<b>Learning Outcome</b>	<b>Content</b>	<b>Suggested Strategies and Approaches</b>	<b>Assessment</b>
1. Identifies communicable diseases and their Prevention 2. Recognizes various Lifestyle diseases and their prevention	<b>Communicable diseases</b> 5.1 Common communicable diseases 5.2 Definition and Meaning 5.3 Types : Malaria, Typhoid, Tuberculosis, Cholera, Diarrhea and HIV Aids 5.4 Symptoms ,causes and prevention Lifestyle Disorder 5.5 Diseases –Lifestyle diseases and their Management (Obesity, Hypertension, Diabetes Heart Attack and Ulcer)	<ul style="list-style-type: none"> <li>• Debate</li> <li>• QA session</li> <li>• Experts Talk</li> <li>• Demonstration</li> <li>• Digital Presentations</li> <li>• Group activity</li> <li>• Verbal presentation</li> <li>• Preparation of database</li> </ul>	<ul style="list-style-type: none"> <li>• Test (Oral/ Written) reports</li> <li>• Quiz</li> <li>• Group presentation</li> <li>• Discussions</li> <li>• Tests</li> <li>• Awareness campaign.</li> </ul>

**SUGGESTED ACTIVITIES (Any Two)**

1. Visit and prepare a report on physical education facilities available in the schools in your locality
2. Conduct a health survey in a village(locality)
3. Prepare an album for ant one communicable diseases
4. Prepare a report on first aid



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**📖 PRESCRIBED READINGS**

1. Ashwani, Bhardwaj. (2012). *A Complete Guide to Family Safety and First-Aid*. New Delhi: Good will Publishing House.
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