Course Code: B2CC1810 *Core Course*

B.Ed. Degree Programme

Semester- II

PSYCHOLOGICAL PERSPECTIVES IN LEARNING

(4 Credits -120 Hours)

✍ COURSE OBJECTIVES:

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

1. understand the concept, nature and principles of learning
2. apply the implications of theories in the classroom content
3. understand the concept of learning and cognition
4. apply the concept of memory, forgetting and motivation in the classroom
5. understand group dynamics and guidance of diverse learners.

Unit- I: UNDERSTANDING LEARNING

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Defines the meaning, concept and definitions of learning 2. Identifies the factors affecting learning of the learner 3. Explains the plateaus of learning 4. Realizes transfer of learning from one situation to another	1.1 Learning: definitions and characteristics. 1.2 Factors affecting learning and principles of learning 1.3 Learning curves , types and plateaus in learning 1.4 Transfer of learning: types and implications.	• Lecture/briefing • Group discussion • Assignment • Seminar • Auto instruction • QA session • Peer learning	• Test (oral/written) • Assignment evaluation • Seminar presentation • Observation of classroom behaviour

Unit- II: THEORIES OF LEARNING

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Analyses various behaviourists, cognitive, constructive, social and humanistic learning theories 2. Compares and contrast within various theories of learning 3. Identifies the importance of learning theories in classroom	2.1 Behaviourist theories: Thorndike, Pavlov, Skinner, 2.2 Cognitive learning theories: Bruner and Kohler 2.3 Constructivist theories: Piaget and Vygotsky 2.4 Social learning theory: Bandura 2.5 Humanistic theories: Carl Rogers and Maslow 2.6. Gagne's hierarchy of learning	• Lecture through visual presentation • Group discussion • Assignment • Seminar • Talk by experts • Auto instruction • Panel discussion	• Test (written/ oral) • Assignment evaluation • Report of discussion • Observation of classroom behaviour

Unit- III: LEARNING AND COGNITION

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Differentiates, sensation and perception 2. Explains attention and its types 3. Evaluates thinking, reasoning and problem solving. 4. Defines concept formation and concept mapping	3.1 Sensation and perception 3.2 Attention : meaning, types, factors and span of attention 3.3 Thinking, Reasoning and Problem solving. 3.4 Meta-cognition: meaning and strategies to improve meta-cognition 3.5 Concept formation, concept mapping	• Lecture through visual presentation • Group discussion • Assignment • Seminar • QA session • Talk by experts	• Test (written/oral) • Assignment evaluation • Report of discussion • Observation of classroom

Unit- IV: MEMORY, FORGETTING AND MOTIVATION

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Explains the meaning, types, strategies to improve memory of learner 2. Analyses the causes of forgetting 3. Apply the various motivation techniques in the classroom	4.1 Memory: definitions, types and strategies to improve memory 4.2 Forgetting: definition, causes, and theories of forgetting, 4.3 Curve of forgetting, educational implications 4.4 Motivation –, definitions, types and classroom motivation techniques. 4.5 Achievement motivation meaning and developing achievement motivation.	• Lecture • Group discussion • Assignment • Seminar through visual presentation • Debate • QA session • Peer learning	• Test (written/oral) • Assignment evaluation • Report of discussion

Unit-V: GUIDANCE OF DIVERSE LEARNERS

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Explains group dynamics in the classroom 2. Analyses the guidance of diverse learners	5.1 Group dynamics: Types of groups and group relationship in the class 5.2 Guidance for 5.3.1 learning disabled 5.3.2 gifted learners 5.3.3.ADHD learners 5.3.4 slow learners 5.3.5 delinquent learners	• Lecture • Group discussion • Assignment • Seminar • Auto instruction • Peer learning	• Test (written/oral) • Assignment evaluation • Report of discussion • Seminar presentation

SUGGESTED ACTIVITIES (Any two)

1. Visit any two schools and observe five classes on different learning process.
2. Prepare an album of any 10 psychologists and their contributions to learning process.
3. Visit any two special education institutions and write a report on the methods of teaching.
4. Write an assignment on meta cognitive strategies to enhance academic achievement.

🕮 PRESCRIBED READINGS

1. Agarwal . J.C. (2004). *Essentials of educational psychology*, Vikas Publishing House.

2. Aggarwal . J.C (2004). *Educational psychology*. New Delhi: Vikas Publishing House Pvt. Ltd.

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15. Mangal S.K. (2007). *Essentials of educational psychology*. New Delhi: Prentice hall of India.

16. Mangal.S.K (2004). *Psychology of learning and development.* Ludhiana: Tandon Publications.

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Ludhiana: Bharat Book Centre.

18. Sharma .S.K. (2005). *Learning and teaching.* New Delhi: Gyan books.

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🕮 SUGGESTED READINGS

1. Anastasi, Anne (1989). *Psychology testing. New York:* Macmillan Publishing Company.

2. Ausubel David. P & Floyd. G. Robinson (1985). *Educational psychology*, Holt Rinehart and Winston Inc.

3. Benjafield. J. G. (1992). *Cognition, Prentice Hall,* Englewood Cliffs.

4. Kauffman, et al. (1993). *Exceptional children. USA*: Allyn & Bacon:Boston.

5. Gardner, Howard (1989). *Frames of mind. The theory of multiple intelligences.* New York: Basic Books.

Course Code: B2PC1811 *Pedagogic Course*

B.Ed. Degree Programme
Semester-II
DEVELOPMENT OF BIOLOGICAL SCIENCE EDUCATION

(4 Credits - 120 Hours)

✍ **COURSE OBJECTIVES:**

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

1. familiarize the history and development of Biological science education.
2. appreciate the contributions of biologists in human progress.
3. have an insight of the inter and intra disciplinary nature of Biological science.
4. Acquaint with the emerging trends and principles of curriculum construction
5. develop skills in organizing various co-curricular activities in Biological science.
6. appreciate various resources for teaching Biological science.

Unit-I: DEVELOPMENT OF BIOLOGICAL SCIENCE AND CONTRIBUTIONS OF BIOLOGISTS

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Familiarizes the development of Biological science 2. Identifies various commissions and their recommendations in science education 3. Develops appreciation of the contributions of biologists	1.1 History and development of Biological science 1.2 Development of science Education in India 1.3 Recommendations of different education commissions 1.3.1. Kothari Commission (1964), 1.3.2. Ishwar bhai Patel Committee(1977) 1.3.3. National policy on Education- NPE (1986), 1.3.4. National Curriculum framework- NCF (2005). 1.3.5. National Knowledge commission-NKC (2007) 1.4 Contributions of eminent biologists 1.4.1 Louis Pasteur 1.4.2 Robert Koch 1.4.3 Gregor Mendel 1.4.4 Ian Wilmut 1.4.5 M.S.Swaminathan 1.4.6 Hargobind Khurana	• Discussion • Digital presentation • Peer learning • Seminar • Debate • Talk by experts	• Test (oral/written) • Assignments • Report writing • Seminar presentation • Quiz • Information sheet

Unit- II: INTER AND INTRA DISCIPLINARY NATURE OF BIOLOGICAL SCIENCE

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Explains the correlation of Biology with other disciplines. 2. Explains the correlation with life situation	2.1 Correlation among different branches of Biological science 2.1.1 Correlation with other disciplines a) Language, b) Physics, c) Chemistry, d) Mathematics, e) Social Sciences f) Arts 2.1.2 Correlation with life Situations.	• Group discussion • Assignment • Peer learning • Debate	• Test (oral/written) • Report writing • Seminar • Quiz • Preparation of experience paper

Unit- III: CURRICULUM IN BIOLOGY

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Analyses the principles of curriculum construction 2. Differentiates between various approaches of curriculum development 3. Familiarizes various curricular reforms	3.1 Curriculum – Meaning, Components of curriculum 3.2 Principles of curriculum construction 3.3 Approaches to curriculum development Topical, Logical, Concentric , Spiral, Unitary approach 3.4 Curricular reforms 3.4.1 Biological Science curriculum study	• Briefing /Lecture • Discussion • Interactive learning • Seminar • Group activity • Digital presentation	• Tests (written/oral) • Observation • Report writing • Seminar presentation

Unit-IV: CO-CURRICULAR ACTIVITIES IN BIOLOGICAL SCIENCE

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Identifies the importance of co-curricular activities 2. Develops a plan to organize various co-curricular activities	4.1 Co-curricular activities- need and importance 4.2 Science club- organisation and activities 4.3 Science Exhibition and Science Fair 4.4 Field Trips 4.5 Science garden 4.6 Nature calendar 4.7 Science Museum	• Lecture • Organizing science exhibition • Seminar • Organization of seminars/ workshops related to the subject	• Test (oral/written) • Participation in co-curricular activities • Report writing • Seminar presentation

Unit-V: RESOURCES FOR TEACHING BIOLOGICAL SCIENCE

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Identifies various supporting materials useful for learning Biological Science	5.1 Print resources- textbooks- qualities of a biology text book, workbook, journals, newspapers, science encyclopedias 5.2 Visual resources- charts, flashcards, models, posters, Photographs 5.3 ICT resources- Smart phone, Internet, Interactive whiteboard 5.4 Community resources– Zoological gardens, Botanical gardens, Aquarium 5.5 Laboratory and its organization 5.5.1. Laboratory plan 5.5.2. Laboratory registers and Lab rules 5.5.3. Accidents and first aid	• Lecture • Group discussion • Seminar • Debate • Auto instruction • Digital visual presentation	• Observation • Questioning • Tests (written/oral) • Reports • Tests • Preparation of visual resources

SUGGESTED ACTIVITIES (Any two):

1. Prepare a digital album on the life and contributions of a biologist.
2. Organize a Field Study and prepare a report.
3. Collect and preserve specimens.
4. Select a unit and prepare visual resources for teaching Biological science.

🕮 PRESCRIBED READINGS

1. Ameeta. P (2010), *Techniques of teaching Biological Science*, New Delhi, Neel Kamal Publications Pvt. Ltd.
2. Anju, Soni (2005) *Teaching of Biological Science Ludhiana*, Tandon Publications.
3. Das R.C. (1992) *Teaching of Science Amritsar*. M/S Krishna Bros.
4. Jasim Ahmad (2011) *Teaching of Biological Science*, New Delhi: PHI Learning.
5. Mangal S.K (2005), *Teaching of Biology Meerut*: Chandigrah Loyalk Publications.
6. Sharma .R.C (1984) *Modern Science teaching*. Meerut: Dhanpatrai and sons.
7. Sivarajan.A., & Faziluddin. A. (2005). *Science Education* Calicut: Calicut University Central Co-operative stores Ltd.
8. Sood .J.K. (1985), *Teaching Life Science*. Kohli publications,Delhi.
9. Sudha Pahuja.(2010). *Teaching of Biological Sciences*. Meerut, R.Lall BookDepot.
10. Yadav ,M..S .(2003) *Teaching of Science*, New Delhi: Anmol publications

🕮SUGGESTED READINGS

1. Ameeta .P. (2012) *Methods of Teaching Biological Science*, New Delhi: Neelkamal Publications Pvt. Ltd.
2. Buffaloe, Neal, Thornberry J.B. (1972) *Principles of Biology*, University press, New Delhi: Prentice Hall of India Ltd.
3. Bhatnagar,.A. B. & Bhatnagar S.S. (2010).*Teaching of Science*, Meerut: R. Lall Book Depot.
4. Joseph .T.T (2004).*Modern Trends in Science Education*, Kottayam: Ashoka offset Press.

5. S.P.Kulshreshtha (2010).*Teaching of Science*, Meerut: R. Lall Book Depot.

6. Mathew.T.K & Mollykutty .T.M (2011). *Science Education: Theoretical bases of teaching and pedagogic analysis.* Chenganoor: Rainbow Book Publishers.

7. Saunders.H.N (1967).*The Teaching of General Science in Tropical Secondary School*, London: Oxford University Press.

Course Code: B2PC1812 *Pedagogic Course*

B. Ed. Degree Programme

Semester - II

DEVELOPMENT OF ENGLISH EDUCATION

(4 Credits -120 Hours)

✍ COURSE OBJECTIVES

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

1. analyse the role of English language in the Indian context
2. recognize the importance of linguistic characteristics of English language
3. develop language skills -Listening ,Speaking ,Reading and Writing
4. develops knowledge to teach vocabulary and grammar

Unit- I: ROLE OF ENGLISH IN THE INDIAN CONTEXT

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Analyses the sound system of English language. 2. Applies correct sounds in every day use.	1.1 Phonology – Organs of speech- Classification and descriptions of consonants, Vowels and Diphthongs 1.2 Word accent– Stress and rhythm in English – intonation – Practice in phonetic transcription – Received Pronunciation	• Lecture-Discussion • Small group discussion • Brainstorming	• Class test (oral/written) • QA Session • Assignment • Group work

Unit- II: LINGUISTIC BEHAVIOUR AND SYSTEM

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Identifies the importance of linguistic behavior of English language 2. Analyses the linguistic system of English language	2.1 Linguistic Behaviour- language as a rule governed behaviour and linguistic variability- linguistic diversity. 2.2 Linguistic system - Morphemes, Allomorph, Syntax and Semantics,	• Lecture/discussion • Expert talks • Language Lab • Video/Audio presentation	• QA Session • Class Test (oral/written) • Seminar • Assignment

Unit- III: DEVELOPING LANGUAGE SKILLS (LISTENING SPEAKING, READING AND WRITING

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Develops knowledge to teach the language Skills of listening and speaking.	3.1 Language skills – Listening, speaking, reading, writing (LSRW) 3.2 Listening: Concept, types, Significance and Activities to develop Listening and its evaluation 3.3 Speaking: Concept, Significance and activities to develop speaking and its evaluation 3.4 Materials and resources for developing listening and speaking skills: storytelling, dialogues, situational conversations, phone calls, interviews , role plays, simulations, speech, games and contexts, language laboratories, pictures, authentic materials and multi-media resources.	• Group Discussion • Brainstorming • Seminars • Assignments • Peer Learning • Digital Presentation	• Participation in brain storming / Relevance of ideas • Observation • Seminar Presentation • QA Session • Evaluation of Assignments

Unit- IV: DEVELOPING LANGUAGE SKILLS (READING AND WRITING)

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Critically evaluate the methods of teaching the skills reading and writing.	4.1 Reading: Concept, Methods (Phonic, Whole Word), 4.1.1 Types (Loud, Silent, Intensive, Extensive) 4.2 Techniques to increase speed of Reading (Phrasing, Skimming, Scanning, Columnar Reading, Key word Reading). 4.2.1 Sub – skills of reading; strategies for developing reading skills 4.3 Writing—Stages of writing; 4.3.1 Process of writing; Formal and Informal, short story, letter, memo, diary, notices, articles, reports, dialogue speech, advertisement. 4.4 Composition - Types of Composition (Guided, Free and Creative), 4.5 Evaluating	• Group Discussion • Brainstorming • Seminars • Assignments • Peer Learning • Digital Presentation	• Participation in brain storming / Relevance of ideas • Observation • Seminar Presentation • QA Session • Evaluation of Assignments

	Compositions, 4.6 Letter Writing (Formal, Informal) 4.7 Study Skills (Note Taking and Making), 4.8 Reference Skills (Dictionary, Encyclopedia, Thesaurus)		

Unit -V: COMMUNICATIVE ACTIVITIES & VOCABULARY

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Develops Knowledge to teach vocabulary and grammar.	5.1. Creating a need to Communicate: guessing games; information gap exercises, exchanging personal information. 5.2 Showing the meaning of words – giving examples – using a new word in questions – active and passive vocabulary.	• Assignments • Group work • Peer teaching • Seminar	• Q.A. sessions • Discussion • Vocabulary check

SUGGESTED ACTIVITIES (Any Two):

1. Identify the challenges of teaching and learning English in Tamil Nadu and present a report.
2. List Language (English) related pronunciation errors common among students in your Practice teaching school and suggest corrective measures.
3. Prepare instructional strategies for enhancing language skills- Listening, Speaking, Reading and Writing (one for each skill).
4. Prepare a vowel and consonant chart.

📖PRESCRIBEDREADINGS

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2. Alexander. L. G. (1975). *A first book in comprehension, précis and composition.* Longman: Hong kong.
3. Brewster Jean, Gail Ellis & Denis Giraf. (1992).*The primary English teachers's guide*. Penguine Books: London.
4. Choudhary.N.R. (2002): *English Language Teaching.* Mumbai: *Himalaya Publish House.*
5. Cameron, Lynne (2001) .*Teaching language to my young learners.* Cambridge University Press: Cambridge.
6. Dave, Pratima .S. (2002): *Communicative Approach to the Teaching of Bachelor of Education English as A Second Language*, Himalaya Publishing House,Mumbai. Kohli A.L (2001) .*Techniques of teaching English in the new millennium*. Dhanpat Rai : NewDelhi.
7. Singh .Y.K (2005). *Teaching of English* .APH Publishing Corporation: NewDelhi.
8. Amritavatli. R. (1999): *Language as a Dynamic Text: Essays on Language, Cognition and Communication*. CIEFL Akshara series. Hyderabad: AIllied Publishers
9. Bond.L.Getat. (1980): *Reading Difficulties-Their Diagnosis and Correction*, New York, Appleton – Century Crafts.
10. Byrne. D. (1975): *Teaching Writing*, London, Longman.

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12. Dave, Pratima .S. (2002): *Communicative Approach to the Teaching of English as a Second Language*, Himalaya Publish House, Mumbai.
13. David. E. (1977): *Classroom Techniques- Foreign Languages and English asa Second Language*, New York, Harcourt Brace.
14. Balasubramaniyan .T. (2005). *A Text Book of English, Phonetics for Indian Students.* New Delhi: Maxmilan publishers.

🕮SUGGESTED READINGS

1. Davis, Paul & Mario Rinvolucri. (1988): *Dictation: New Methods, New Possibilities. Cambridge Handbook for Language Teachers.*
2. Halbe, Malati, (2005): *Methodology of English Teaching*, Himalaya Publish House.
3. Hill.L.A. (n.d.). *Selected Articles on the teaching of English as a foreign language*, oxford University Press,1967.
4. Johnson. K (1983): *Communicative Syllabus Design and Methodology*,
   Oxford, Pergamon Press.
5. Khan, Nasiruddin. (2005): *Introduction of English as a subject at the primary level.* Ms., NFG-English.
6. Kohali. A. L. (2016). *Techniques of Teaching English in the New Millennium.*

Course Code: B2PC1813

Pedagogic Course

B.Ed. Degree Programme

Semester - II

DEVELOPMENT OF HISTORY EDUCATION

(4 Credits – 120 Hours)

✍ **COURSE OBJECTIVES:**

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

1. acquire knowledge about various theories that influence History teaching
2. appreciate the contributions of eminent historians to the development of History
3. understand the interdisciplinary nature of History with other social sciences.
4. familiarize emerging trends and principles of curriculum construction of History in high school classes.
5. develop skill in organizing co-curricular activities for promoting historical learning.
6. develop interest in utilizing the various instructional resources in learning History.

Unit-I: THEORIES INFLUENCING SELECTION OF HISTORY MATERIALS AND CONTRIBUTIONS OF HISTORIANS

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Recognizes the various theories that influence History teaching 2. List out and internalizes the contributions of eminent historians to the development of History	1.1 Doctrine of natural tastes and interest 1.2 Cultural Epoch Theory 1.3 Proceeding from near to remote **Greek Historians:** Herodotus, Thucydides, Polybius, Plutarch **Roman Historians** : Cato, Cicero, Livy, Tacitus **Renaissance Historians** Machivelli, Erasmus, Thomas Moore, Francis-Back on. **Enlightened Historians-** Montesque, Voltaire, Edward Gibbon, Thomas Carlyle. **Indian Histotoriography**: Kalhane, Ahul Fazl, Vincent Smith, K.P. Jayaswal, J.N.Sarkar, R.C. Majundar, K. M . Panikkar, Satyanatha Iyer, Neelakanda Sastri.	• Briefing • Preparation of report on Biographies • Discussion • Auto learning	• Tests (Oral/ Written) • QA Session • Evaluation of Report

Unit- II: INTERDISCIPLINARY NATURE OF HISTORY

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Discusses the relationship between History and other Social Sciences.	2.1 Relationship between History and other Social Sciences – Geography, Economics, Politics, Sociology, Psychology. 2.2 Geographical foundations of History. 2.3 Dimensions of History - Time, Place, Continuity and Development	• Seminar • Discussion • Lecture • Brainstorming	• Q A Session • Tests (Oral/ Written) • Assessing Seminar papers

Unit- III: CURRICULUM CONSTRUCTION IN HISTORY AT SCHOOL LEVEL

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Acquaints with emerging trends and principles in the construction and organization of History curriculum 2. Identifies evaluation criteria for history curriculum.	3.1 Curriculum: Meaning and Concept 3.2 Difference between curriculum and syllabus. 3.3 Principles and approaches of curriculum construction: (i) Concentric (ii) Spiral (iii) Progressive (iv) Regressive (v) Chronological and (vi) Genealogical 3.4 Evaluation of Curriculum in History	• Lecture • Discussion • Seminar • Auto Instruction	• Test (Oral/ Written) • QA Session • Seminar presentation

Unit- IV: CO-CURRICULAR ACTIVITIES IN HISTORY

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Plans various programmes to organize co-curricular activities for promoting historical learning	4.1 Need and importance of co-curricular activities in teaching History - Advantages 4.1.1 Criteria for co-curricular activities 4.2 History Museum 4.3 Exhibitions 4.4 Excursions and fieldtrips 4.5 Field visits 4.6 Club Activities	• Lecture • Discussion • Auto learning • Visual presentation	• Tests (Oral/ Written) • Participation in co-curricular activities • QA Session

Unit-V: INSTRUCTIONAL RESOURCES IN TEACHING HISTORY

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Conscientizes the inevitable role of various instructional resources ineffective instructional practices. 2. Locates and lists out the important community resources in teaching history.	5.1. Instructional Resources– need for instructional resources in learning. Types: 5.1.1 Text books 5.1.2 Workbook 5.1.3 Supplementary reading 5.1.4 Globe, Maps and Atlas: Types and uses. 5.2. Historical Resources: Palace, Museum, Forts, archives. 5.3. Community Resources – importance and methods of utilizing community resources in teaching History.	• Lecture • Discussion • Interactive session • Auto learning • Preparation of list of resources	• Evaluating assignment • Test (Oral/ Written) • QA session • Evaluation of report writing

SUGESTED ACTIVITIES (Any Two**):**

1. Prepare Biographies of famous Historians.
2. Collect the information about the organizations and activities conducted for history teacher.
3. Visit the identified historically important places and prepare a report.
4. Prepare a report on various resources available for teaching/learning History

🕮PRESCRIBED READINGS

1. Bhata. R.L. (2004). *Contemporary teaching of History*. (2nd Ed.). New Delhi: Surjeet publications.
2. Kocchar. S.K. (1995). *Methods and techniques of teaching.* New Delhi: Sterling publishers.
3. Roblyer. M.D. (2008). *Integrating educational technology into teaching.* New Delhi: Pearson.
4. Sagar, Krishna. (2005). *ICT Teacher training.* New Delhi: Global network.
5. Singh., & Gopal (2004). *Teaching strategies.* New Delhi: APH Publishing Corporation.
6. Sivarajan.K, Thulasideeran., & Vijayan.N.K. (2007). *Social science education: Methods and techniques of teaching.* Calicut: Calicut university co-operative store.
7. *Teachers hand book in social science for standard eighth, ninth and tenth*. NCERT Textbooks.
8. Kocchar, S. K. (1995). *Methods and techniques of teaching.* New Delhi: Sterling publishers.

🕮SUGGESTED READINGS

1. Ehman., & Patrick. (19740. *Towards effective instruction in social studies.*Ludhiana: Kalyan publishers.
2. Kocchar. S. K. (1995). *Methods and techniques of teaching.* New Delhi: Sterling publishers.
3. Roblyer. M. D. (2008). *Integrating educational technology into teaching.* New Delhi: Pearson.
4. Sagar, Krishna. (2005). *ICT Teacher training.* New Delhi: Global network.
5. Singh., & Gopal. (2004). *Teaching strategies.* New Delhi: APH Publishing corporation.
6. Sivarajan.K.,Thulasideeran., & Vijayan. N.K. (2007). *Social science education: Methods and techniques of teaching.* Calicut: Calicut university co-operative store.
7. *Teachers hand book in social science for standard eighth, ninth and tenth*. NCERT Textbooks.

Course Code: B2PC1814 *Pedagogic Course*

B.Ed. Degree Programme
Semester - II
DEVELOPMENT OF MATHEMATICS EDUCATION
(4 Credits – 120 Hours)

✍ COURSE OBJECTIVES:

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

1. familiarize the history of development of Mathematics and the contributions of various Mathematicians
2. have an insight of the intra and interdisciplinary of Mathematics
3. acquaint with emerging trends and principles of curriculum construction in Mathematics
4. develop skill in organising co-curricular activities in Mathematics
5. appreciate various resources for teaching Mathematics.

Unit-I: DEVELOPMENT OF MATHEMATICS AND CONTRIBUTIONS OF MATHEMATICIANS

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Familiarizes the history of development of mathematics 2. Recognises the contribution of various mathematicians	1.1 Brief history of the development of 1.2 An examination of the contribution of India to the development of mathematical concept of Vedic mathematics. 1.3 Contributions of great Mathematicians 1.3.1 Phytagoras 1.3.2 Rene Descartes 1.3.3 Aryabhatta 1.3.4 Brahmagupta 1.3.5 Bhaskaracharya 1.3.6 Srinivasa Ramanujan 1.3.7 Euclid 1.3.8 Euler	• Lecture • Electronic visual presentation • Seminar • Discussion	• Tests (oral/written) • Reports • Seminar presentation

Unit-II: INTER AND INTRA DISCIPLINARY NATURE OF MATHEMATICS

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Recognizes the relationship of mathematics with other subjects 2. Familiarizes about correlating mathematics in real life situations	2.1 Correlation among different branches of mathematics 2.2 Correlation of mathematics with other disciplines – Physics, Chemistry, Biology, Social Science, Language, Arts 2.3 Correlation of mathematics with life situations	• Briefing • Seminar • Assignment • Group Discussion • Debate	• Tests (oral/written) • Reports • Seminar presentation • Evaluation of assignment

Unit- III: CURRICULUM DEVELOPMENT IN MATHEMATICS

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Familiarises curriculum development in Mathematics 2. Identifies the new trends in curriculum construction and organization 3. Analyses the reforms in curriculum 4. Acquaints with the projects for the development of curriculum	3.1 Curriculum development in Mathematics – Need and importance 3.2 Principles of curriculum development in Mathematics 3.3 Approaches to curriculum development: logical and psychological, topical and spiral 3.4 Types of curriculum: Activity based, child centered, Community based, Hidden curriculum 3.5 Reforms in Curriculum 3.5.1. Rationale and principles of curricular reforms 3.5.2 National and state level reforms 3.6 Study of certain important projects for the development of Curriculum– SMSG, SMP, NCERT Curriculum	• Lecture • Electronic visual presentation • Seminar • Discussion	• Test (oral/ written) • Seminar presentation • Reports

Unit-IV: CO-CURRICULAR ACTIVITIES IN MATHEMATICS

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Develops the ability to organize co-curricular activities relevant to curriculum 2. Analyses the importance of aesthetic and recreational	4.1 Mathematics club - Importance, organization and functioning 4.2 Exhibition and fair 4.3 Recreational 4.3.1 Riddles 4.3.2 Puzzles 4.3.3 Paradoxes 4.3.4 Magic squares 4.3.5 Beautiful number pattern	• Lecture • Seminar • Discussions	• Participant observation • Reports

Unit- V: RESOURCES FOR TEACHING MATHEMATICS

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Acquaints with the various supporting system/material useful for learning Mathematics 2. Develops skill in preparing various instructional materials for effectiveness of instruction	5.1 Print resources 5.1.1 Textbooks 5.1.2 Workbooks 5.1.3 Handbooks 5.1.4 Journals 5.1.5 Magazines 5.1.6 Newspapers 5.2 Visual resources 5.2.1 Pictures 5.2.2 Charts 5.2.3 Flashcards 5.2.4 Models 5.3 Electronic resources 5.3.1 Computer 5.3.2 Interactive Whiteboard 5.3.3 Smartphone	• Lecture • Digital presentation • Seminar • Discussion • Debates • Auto instruction	• Test (oral/written) • Questioning • Reports

SUGGESTED ACTIVITIES (Any two)

1. Prepare a report on history of development of mathematics
2. Collect the biography of any one mathematician
3. Prepare a report on curriculum development in Mathematics
4. Prepare a report on correlation of mathematics in real life situations

🕮PRESCRIBED READING

1. Aggarwal, S.M. (2001). *A Course in teaching of Modern Mathematics*. New Delhi: Dhanpat Rai Publishing House.
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. Kumar, S., & Ratnalikar, D.N. (2003). *Teaching of Mathematics*. New Delhi: Anmol Publishing House.
5. Kulshreshtha, A.K. (2008). *Teaching of Mathematics*. Meerut: R. Lall Books Depot.
6. Shakuntala, D. (1999). *More puzzles*. New Delhi: Orient Paperbacks.
7. Sidhu. K.S. (2000). *Teaching of Mathematics.* New Delhi: Sterling Publications.

🕮SUGGESTED READING

1. Bruner, J.S. (1971). *Towards a study of instruction*. Cambridge: Harward University press.
2. Gagne, R.M (1967). *Learning and individual differences*. Ohio: Charles E. Merril Books.
3. Kapoor, S.K. (2006). *The teaching of vedic mathematics*. New Delhi: Lotus Press.
4. Reymond, B. (2000). *Math tricks, puzzles and games*. New Delhi: Orient Paperbacks.
5. Siddiqui.M.H. (2007). *Teaching of Mathematics.* New Delhi: APH Publishing House.

Course Code: B2PC1815 *Pedagogic Course*

B.Ed. Degree Programme
Semester-II
DEVELOPMENT OF 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 development of Physical Science Education.
2. develop understanding about the inter and intra disciplinary nature of physical science.
3. acquire knowledge about the meaning, principle and various curricular improvement project.
4. develop skills in organizing various co-curricular activities in physical science.
5. appreciate the contributions of scientists in human progress and use of various resources in teaching physical science

Unit- I: DEVELOPMENT OF SCIENCE AND CONTRIBUTIONS OF SCIENTISTS

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Discusses the evolution of science 2. Lists out the various commissions and their recommendations in science education 3. Reads books related to the contribution of eminent scientist	1.1 Evolution of Science as a discipline 1.2 Development of science Education in India 1.3 Recommendations of various education commissions and committees with regards to science education 1.3.1 Ishwarbhai Patel Committee (1977), 1.3.2 Kothari Commission 1.3.3 NPE(1986), 1.3.4 National Council for Education Research and Training (NCERT). 1.4 Contribution of Eminent Scientists - Indian and Abroad- 1.4.1 Einstein 1.4.2 Sir Issac Newton 1.4.3 Mandeleev 1.4.4 C.V. Raman 1.4.5 Homi Jehangir Bhabha 1.4.6 A.P.J. Abdulkalam	• Discussion • Digital presentation • Peer learning • Seminar • Debate • Talk by experts • Debates • Digital presentation	• Test (oral/written) • Assignments • Report writing • Quiz • Information sheet

Unit- II: INTER AND INTRA DISCIPLINARY NATURE OF PHYSICAL SCIENCE

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Outlines the correlation of science with other discipline 2. Explains the correlation with life situation 3. Suggests remedies to solve problems in everyday life	2.1 Correlation among different branches of Physical science. 2.1.1 Correlation of Science with one another. 2.1.2 Correlation with other disciplines: i) Language, ii) Mathematics, iii) History, iv) Geography, v) Craft, vi) Fine Arts 2.1.3 Correlation with life Situations. 2.1.4 Advantage of Correlation	• Group discussion • Preparation of Assignment • Peer learning • Debate	• Test (oral/written) • Report writing • Seminar • Quiz

Unit-III: CURRICULUM DEVELOPMENT IN PHYSICAL SCIENCE

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Recognizes the meaning and importance of curriculum 2. Identifies the various curricular improvement project	3.1 Curriculum Meaning and scope, Principles of Curriculum Construction, Approaches to curriculum construction 3.2 Curricular improvement project in India 3.2.1 Role of NCERT 3.3 Curricular improvement project abroad 1.3.1 PSSC 1.3.2 CHEM Study 1.3.3 CBA	• Lecture • Discussion • Team teaching	• Test (oral and written) • Assignment • Seminar presentation

Unit- IV: CO-CURRICULAR ACTIVITIES IN PHYSICAL SCIENCE

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Identifies the importance of co-curricular activities 2. Develops a plan to organize various co-curricular activities	4.1 Co-curricular activities 4.1.1 Definition 4.1.2 Need and relevance 4.1.3 Advantages of co-curricular activities 4.2 Criteria for selection of co-curricular activities 4.3 Science club 4.4 Science Exhibition and Fairs 4.5 Field visit and study	• Lecture • Organizing science exhibition • Extension activity • Organization of seminars/ workshops related to the subject	• Test (oral/written) • Participation in co-curricular activities • Report writing • Seminar presentation

Unit- V: RESOURCES FOR TEACHING PHYSICAL SCIENCE

Learning Outcome	Content	Suggested Strategies and Approaches	Assessment
1. Explains the various resources available for teaching physical science. 2. Locates the nearby resources 3. Apply the relevant resources for teaching	5.1 Visual Resources Pictures, Flashcards, Charts, Posters, Photographs, Models. 5.2 ICT Resources Television, Internet, Multimedia, Interactive whiteboard. 5.3 Community Resources 5.3.1 Science centers 5.3.2 Science exhibition/ fair 5.4 Laboratory Resources 5.4.1 Need and importance 5.4.2 Structure and Design 5.4.3 Maintenance of various registers 5.4.4 Accident and first aids	• Lecture • Discussion • Seminar • Digital Presentation • Peer learning	• Material development • Test (oral/written) • Report writing

SUGGESTED ACTIVITIES (Any two):

1. Prepare a digital album on the life and contributions of a scientist.
2. Organize a Field Study and prepare a report.
3. Visit a science exhibition in your locale and prepare a report.
4. Prepare a list of instructional resources for teaching Physical Science.

🕮 PRESCRIBED READINGS

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

🕮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.* NewDelhi: Sterling Publishers.
4. Joseph.T.T (1982).*Modern trends in science education.*(2nd 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.

Course Code: B2DP1816 *Developing Professional Competencies*

B.Ed. Degree Programme
Semester-II
YOGA FOR PROFESSIONAL EXCELLENCE

(2 Credits- 60 Hours)

✍ **COURSE OBJECTIVES:**

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

1. understand the aim of yoga and its significance
2. understand the meaning and significance of Asanas, Pranayama, and meditation
3. understand the meaning and significance of Mudra.
4. understand the importance of good posture.

At the end of the course the student teachers know

- History of Yoga and Indian Philosophy
- Concepts of various religions.
- Principles of Yoga
- Concept of Yoga exercise for longevity
- General principles of life,
- Know Self, family, relative, society and world
- Physiology of yoga
- Biomechanics in yoga
- Yoga Therapy
- Causes and Treatment through yoga for Hypertension, Diabetic,
- Obesity and Thyroid, Asthma and Sinus etc
- Neutralization of anger and Eradication of worries
- Harmonious relationship with society
- Virtuous way of living
- Types of Yoga and Uses
- Identify the Personal problems and their solution
- Benefits of Meditation

Tasks and Assignments:

1. Write a detailed report on yoga.
2. Physiological and Biomechanical uses of yoga.
3. Merits of Meditation.

Course Code: B2DP1817 *Developing Professional Competencies*

B.Ed. Degree Programme
Semester-II
DRAMATICS AND ARTS IN EDUCATION
(2 Credits- 60 Hours)

The aim of this course is to enhance the professional capacities of a student-teacher, specifically his / her creativities and aesthetic sensibilities.

✍ **COURSE OBJECTIVES:**

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

1. use the techniques of art, music and drama for enhancing teaching and learning.
2. use art, music and drama for enhancing one's self- expression and creativity.
3. identify and recognize the experts in art, music and drama in the community and involve them for enhancing of teaching-learning process.

How to use art, music and drama in Education.

The teachers in Colleges of Education should:

1. With fine arts experts, engage the student-teachers in making a work of art/a drawing/a sketch/a sculpture/a statue relating to school subjects, in doing an oil painting/a line drawing/ a rough sketch, in painting a picture/landscape/mural/in oils/in water colours / draw a picture/ a protract /a cartoon / a line / a figure / a human form/ in charcoal / in ink.
2. Engage the student-teachers in visiting art galleries /art exhibitions and cultural festivals
3. Encourage the student-teachers to understand local culture and art forms and interpret art works, movies and other media.
4. Train the student-teachers to use drama to interrogate/question and seek clarity in the areas of 'discomfort' and 'confusion' to them (such as completely segregated social environments, bounded by caste, class, religions or gender, etc).

5. Train the students-teachers in choosing themes and stage them as skits plays/dramas/street plays, so that they can develop the ability to feel empathy for and relate with others.
6. Engage the student-teachers to nurture and build their sensitivities through drama, based on experience, emotions and interpretation.
7. Guide the student-teachers to identify and recognize local artists, drama experts in schools/ colleges and use them for transformational action.
8. Guide the student-teachers to experience and stage different kinds of drama/skits/street plays/folk and contemporary traditions relating to day-to-day problems of people of different walks of life.
9. Invite local experts in music and explore the possibilities of teaching certain Contents in school subjects through music.
10. Preparing four lesson transcripts using dramatization technique in their concerned subject.
11. Teaching two lessons (One each in Level I & level II) using role play during internship programme.

Tasks and Assignments:

1. Write a detailed report on how you have used drama as a technique for teaching your school subject.
2. Write a comprehensive report on how you have used fine arts and music for teaching your school subject.
3. Write a comprehensive report on the activities carried out for the course on 'Dramatics and Arts in Education'.