

B.Ed. Degree Programme
Semester-III
SCHOOL ORGANISATION AND MANAGEMENT
(2 Credits – 60 Hours)

Preface

The course aims to equip Prospective Teachers with a comprehensive understanding of school organization and management principles. It will provide them with the necessary knowledge and skills to effectively contribute to the overall functioning of a school, fostering a conducive learning environment for students.

 **COURSE LEARNING OUTCOMES**

On successful completion of the course, the Prospective Teacher

1. Outlines the concept and principles of school organization and management
2. Examines the different leadership practices and its relationship with the governance structures
3. Correlates educational leadership and its potential application to different contexts
4. Designs a school timetable
5. Investigates the types of co-curricular activities

**UNIT-I: INTRODUCTION TO SCHOOL ORGANIZATION AND
MANAGEMENT (10 Hours)**

Learning Outcomes	Content	Suggested Strategies and Approaches
1. States the concept and principles of school organization and management. 2. Estimates the importance of organizational climate. 3. Describes the diversity of schools in India, its structure, governance and context.	1.1 School as a socio-emotional-cultural space for learning 1.2 School organization: meaning, objectives, need, principles and influencing factors 1.3 School management: meaning, objectives, nature, principles and influencing factors 1.4 Diversity of schools in India: their structure, governance, socio-political and cultural context, funding, autonomy and accountability mechanisms	<ul style="list-style-type: none"> • Lecture • Seminar • Discussion • Digital presentation • Tutorials • Group-work • Enquiry-based learning.

Unit-II: INSTITUTIONAL PLANNING (15 Hours)

Learning Outcomes	Content	Suggested Strategies and Approaches
1. Translates the meaning and need of institutional planning 2. Identifies the meaning and nature of school leadership 3. Examines the role of the head of the institution as a leader. 4. Reflects critically on school-based data for improvement and excellence. 5. Summarizes the leadership roles of teachers and students	2.1 Institutional planning: meaning, need and characteristics of an institutional plan 2.2 Meaning and nature of school leadership: democratic leadership 2.3 Head of the institution as a leader: roles and responsibilities 2.4 Use of data for school improvement focused on students' learning, addressing equity challenges and building an equitable school culture that promotes excellence for all 2.5 Teacher as a leader 2.6 Leadership roles of students: school parliament, student council	<ul style="list-style-type: none"> • Lecture • Seminar • Discussion • Visual Presentation • Interactive lectures • Case-based approaches • Panel discussion

Unit-III: MANAGEMENT OF RESOURCES (15 Hours)

Learning Outcomes	Content	Suggested Strategies and Approaches
<ol style="list-style-type: none"> 1. Appraises the human and material resource management at school 2. Deduces the concept of a school plant and resources at school 3. Designs a school Timetable 4. Correlates school and community participation 5. Employs the appropriate classroom management strategies. 6. Investigates the role of managing committee in schools. 	<ol style="list-style-type: none"> 3.1 Management of material resources: school plant, infrastructure, library, laboratory, e-resources School timetable: need and types. Support systems, school records 3.2 Management of human resources 3.3 Nurturing school belongingness: engaging students, teachers, staff, parents, SMC and community in the formulation of a whole school development plan 3.4 Management of financial resources: role of teacher, preparation of school budget 3.5 Classroom management: meaning and its importance, strategies of classroom management 3.6 Co-curricular activities: concept and types 	<ul style="list-style-type: none"> • Lecture • Seminar • Discussion • Invited talk • Reflection on practice as pre-service interns

ASSESSMENT

1. Assignments and projects
2. Classroom participation and discussions
3. Quizz
4. Case study analysis
5. Presentations
6. Reflective journals
7. Tests

SUGGESTED ACTIVITIES (Any one)

1. Prepare a report highlighting the features and limitations of management of a school in your locality.
2. Evaluate the technological support systems available in the nearby school and make a presentation.
3. Conduct a group discussion on the leadership role of Head of the institution in school management.

📖 PRESCRIBED READINGS

- Agarwal, J. C. (2002). *Organization and Practice of Modern Indian Education*. Shipra Publications.
- Bajpai, B. L. (1997). *Making Management Still More Effective*. Vikas Publishing House.
- Bhatnagar, S., Vashishtha, K., & Singh, M. K. (2008). *Educational Management and Problem of Education*. R. Lall Book Depot.
- Dash, B. N. (2004). *School Organization Administration and Management*. Neelkamal Publication.
- Kochhar, S. K. (2000). *Secondary School Administration*. Sterling Publications.
- Mohanty, J. (1990). *Educational Administration, Supervision and School Management*. Deep and Deep Publication.
- Mohanty, J. (2007). *Educational Management, Supervision and School Organisation*. Neelkamal Publication.
- Oberoi, S., & Saxena. (2008). *Essentials of Educational Technology and Management*. R. Lall Book Depot.
- Prasad, L. M. (2012). *Principles and Practices of Management*. Sultan Chand.
- Sharma, S. R. (2005). *Research in Educational Planning*. Anmol Publication.

📖 SUGGESTED READINGS

- Barry, C. H., & Tye, F. (1973). *Running a School*. McMillan Company of India.
- Chaube, S. P., & Chaube, A. (2008). *School Organization*. Vikas Publishing House.
- NCERT. (1968). *The Third Year Book of Education, Educational Research*.
- Scars, J. B. (1960). *The Nature of the Administrative Process*. McGraw-Hill.
- Sindu, K. S. (2007). *School Organization and Administration*. Sterling Publishing.
- Vashist, S. R. (1994). *Classroom Administration*. Anmol Publications Private Limited.
- Walia, J. S. (1984). *Foundation of School Administration and Organization*. Paul Publishers.
- Wright, D. (1998). *Managing Behaviour in the Classroom*. Henemann Educational Publishers.

*Course Code:BED3PC011**Pedagogic Course*

B.Ed. Degree Programme
Semester- III
CURRICULUM AND INSTRUCTIONAL RESOURCES IN BIOLOGICAL
SCIENCE EDUCATION
(2 Credits – 60 Hours)

This course aims to equip Prospective Biology teachers with a comprehensive understanding of curriculum development, analysis and the effective utilization of instructional resources. By exploring the principles of curriculum design, development and evaluation, coupled with the selection and integration of diverse instructional materials, teachers can create engaging and effective learning environments that foster scientific inquiry and critical thinking.

COURSE OUTCOMES:

On successful completion of the course, the Prospective Teacher

1. Analyses the need and importance of curriculum development in Biological Science
2. Identifies the principles of curriculum development in Biological Science
3. Employs various resources for teaching Biological Science
4. Categorizes the different resources for teaching Biological Science
5. Selects various school-based and community-based resources useful for learning Biological Science

**UNIT- I: CURRICULAR ASPECTS OF BIOLOGICAL SCIENCE
EDUCATION (15 Hours)**

Learning Outcomes	Content	Suggested Strategies and Approaches
1. Familiarizes curriculum development in Biological Science 2. Identifies the new trends in curriculum construction and organization 3. Explains the projects for the development of curriculum 4. Organizes co-curricular activities relevant to curriculum	1.1 Curriculum development in Biological Science – Need and importance Principles of curriculum construction Types of curriculum: Subject-centered, Activity-based, Child-centered, Community-based, Hidden curriculum Approaches to curriculum development: Concentric plan, Spiral curriculum, Logical and psychological, Topical and spiral Study of certain important projects for the development of Curriculum – BSCS, Nuffield project, SAPA, NCERT Curriculum	<ul style="list-style-type: none"> • Lecture • Electronic visual presentation • Seminar • Assignment • Discussion

**UNIT-II: INSTRUCTIONAL RESOURCES IN LEARNING BIOLOGY
(15 Hours)**

Learning Outcomes	Content	Suggested Strategies and Approaches
1 Acquaints with the various supporting system/material useful for learning Biological Science 2 Prepares various instructional materials for effectiveness of instruction	2.1 Print resources – Textbooks: Qualities of a Biology textbook, Handbooks, Journals, Magazines, Newspapers, Science encyclopedias, Reference books 2.2 Visual resources – Pictures, Charts, Flashcards, Models, Photographs 2.3 Electronic resources – Smartphone, Internet, Interactive whiteboard	<ul style="list-style-type: none"> • Lecture • Digital presentation • Seminar • Assignment • Discussion • Auto instruction

**UNIT-III: SCHOOL AND COMMUNITY RESOURCES IN LEARNING
BIOLOGY (10 Hours)**

Learning Outcomes	Content	Suggested Strategies and Approaches
1. Identifies different types of resources for learning Biology. 2. Uses the relevant resources for learning Biology based on the content and area. 3. Explores co-curricular activities in Biological Science	3.1 School-based resources – Laboratory and its organization, Laboratory plan, Laboratory register and rules, Accidents and first aid 3.2 Community-based resources – Zoological and botanical gardens, Aquarium, Vivarium, Terrarium 3.3 Co-curricular activities in Biological Science – Need and relevance, Advantages of co-curricular activities 3.4 Science club, Science exhibitions and fairs, Field visits	<ul style="list-style-type: none"> • Lecture • Digital presentation • Seminar • Assignment • Discussion

ASSESSMENT

1. Tests
2. Assignments and projects
3. Classroom participation and discussions
4. Quizzes
5. Curriculum development portfolio
6. Instructional resource analysis
7. Reflective journals

SUGGESTED ACTIVITIES (Any one)

1. Prepare a report on curriculum development in Biological Science.
2. Prepare a report on the comparison of Biological Science textbooks of State Board and CBSE syllabus.
3. Evaluate a variety of instructional materials (textbooks, technology tools) based on specific criteria.

📖 PRESCRIBED READINGS

- Kalra, R & Gupta, V. (2015). *Teaching of Science- A modern approach*, PHI Learning Pvt. Ltd.
- Dash, B.N. (2005). *Psychology of Teaching Learning Process*. Dominant Publishers and Distributors.
- Gupta, S.K. (1985). *Teaching of Physical Science in Secondary Schools*. Sterling Publishing Pvt. Ltd.
- Ignacimuthu, S. (2012). *Biotechnology an Introduction*. Narosa Publishing House.
- Joyce, B., & Weil, M. (2000). *Models of Teaching* (6th ed.). Allyn and Bacon.
- Krishnamacharyalu, V. (2011). *Science Education*. Neelkamal Publications Pvt. Ltd.
- Mangal, S.K. (1913). *Advanced Educational Psychology*. PHI Learning Pvt. Ltd.
- Radha Mohan (2010). *Innovative Science Teaching for Physical Science Teachers*. PHI Learning Pvt. Ltd.
- Sharma, R.A. (2008). *Technological Foundation of Education*. R. Lall Book Depot.
- Sharma, R.C. (2006). *Modern Science Teaching*. DhanpatRai Publications.
- Singh, B.D. (2011). *Fundamentals of Genetics*. Kalyani Publishers.

📖 SUGGESTED READINGS

- Agarwal, S.K. (2005). *Advanced Environmental Biotechnology*. A.P.H. Publishing Corporation.
- Brown, T.A. (1999). *Principles of Genetic Engineering*. Wiley.
- Howe, C. (2007). *Gene Cloning and Manipulation* (2nd ed.). Cambridge University Press.
- Clark, R.C., & Mayer, R.E. (2002). *E-Learning and the Science of Instruction*. Pfeiffer.
- Foster, L.E. (2003). *Medical Nanotechnology: Science, Innovation and Opportunity*. Pearson Education.
- Gosh, T.K. (2005). *Biotechnology in Environmental Management* (Vol. 1 & 2). A.P.H. Publishing Corporation.
- Heiss, E.D., Obourn, S., & Hoffman, C.W. (1985). *Modern Science Teaching*.
- Kolb, D.A. (1984). *Experiential Learning: Experience as a Source of Learning and Development*. Prentice Hall.
- Shulman, L. S. (1986). *Those Who Understand: Knowledge Growth in Teaching*. Educational Researcher, 15(2), 4-14.
- Mishra, P., & Koehler, M. J. (2006). *Technological Pedagogical Content Knowledge: A Framework for Integrating Technology in Teacher Education*. Journal of Teacher Education, 57(1), 60-70.

Course Code:BED3PC012

Pedagogic Course

B.Ed.Degree Programme
Semester- III
CURRICULUM AND INSTRUCTIONAL RESOURCES IN ENGLISH
EDUCATION
(2 Credits – 60 Hours)

Preface

The course aims to equip Prospective English teachers with a comprehensive understanding of curriculum development, analysis and the effective utilization of instructional resources. By exploring the principles of curriculum design, development and evaluation, coupled with the selection and integration of diverse instructional materials, teachers can create engaging and effective learning environments that foster language proficiency and critical thinking.

COURSE OUTCOMES

On successful completion of the course, the Prospective Teacher

1. Analyses the need and importance of curriculum development in Biological Science
2. Identifies the principles of curriculum development in Biological Science
3. Suggests various resources for teaching Biological Science
4. Compares the different resources for teaching English
5. Examines various school-based and community-based resources useful for learning English

UNIT- I: CURRICULAR ASPECTS OF ENGLISH EDUCATION (15 Hours)

Learning Outcomes	Content	Suggested Strategies and Approaches
1. Analyses curriculum development in English 2. Identifies the new trends in curriculum construction and organization 3. Examines the projects for the development of curriculum	1.1 Curriculum development in English: need and importance Principles of curriculum development in English Approaches to curriculum development: logical and psychological, topical and spiral Types of curriculum: Activity-based, child-centered, community-based, hidden curriculum Study of certain important projects for the development of curriculum: NCERT curriculum, NEP 2020	<ul style="list-style-type: none"> • Lecture • Electronic visual presentation • Seminar presentation • Written Assignment • Discussion • Group assignment • Invited talks

UNIT-II: INSTRUCTIONAL RESOURCES IN LEARNING ENGLISH (15 Hours)

Learning Outcomes	Content	Suggested Strategies and Approaches
1. Identifies various supporting system/material useful for learning English 2. Prepares various instructional materials for effective instruction	2.1 Print resources Textbooks/workbooks/handbooks Journals/magazines/newspapers 2.2 Visual resources Realia, Images (models, photos, illustrations, flashcards, diagrams, posters, charts, concept maps, VR and AR, etc.) 2.3 Electronic resources: Computer Interactive whiteboard Smartphone E-books Digital libraries Digital archives/portfolios repositories	<ul style="list-style-type: none"> • Lecture • Digital presentation • Seminar presentation • Written Assignment • Discussion • Group projects • Writing Reports

**UNIT-III: SCHOOL AND COMMUNITY RESOURCES IN LEARNING
ENGLISH (10 Hours)**

Learning Outcomes	Content	Suggested Strategies and Approaches
1. Identifies different types of resources for learning English. 2. Uses the relevant resources for learning English based on the content and area.	3.1 School-based resources Language laboratory Library 3.2 Community-based resources Field trip English book exhibition and fair 3.3 Co-curricular activities in English Literary club Recreational activities for teaching English (On line language games, riddles, puzzles, story creation, poetry writing)	<ul style="list-style-type: none"> • Lecture • Digital presentation • Seminar presentation • Individual Assignment • Discussion • Auto instruction

ASSESSMENT

1. Tests
2. Assignments and projects
3. Classroom participation and discussions
4. Quizzes
5. Curriculum development portfolio
6. Instructional resource analysis
7. Reflective journals
8. Seminar presentation

SUGGESTED ACTIVITIES (Any one)

1. Develop a list of Literature which can play instrumental role in curriculum enrichment of English language
2. Prepare a digitalized lesson plan for any Prose, Poetry, supplementary or Grammar of English Language.
3. Prepare relevant instructional materials for teaching English at the High school level.

📖 PRESCRIBED READINGS

- Adams, M. J. (1990). *Thinking and Learning about Print*. MIT Press.
- Alexander, L. G. (1975). *A First Book in Comprehension, Précis and Composition*. Longman.
- Boswood, T. (1997). *New Ways of Using Computers in Language Teaching*. TESOL.
- Brewster, J., Ellis, G., & Giraf, D. (1992). *The Primary English Teacher's Guide*. Penguin Books.
- Cameron, L. (2001). *Teaching Language to Young Learners*. Cambridge University Press.
- Choudhary, N. R. (2002). *English Language Teaching*. Himalaya Publishing House.
- Egbert, J., & Hanson-Smith, E. (1999). *CALL Environments: Research, Practice and Critical Issues*. Internet for English Teaching.
- Sperling, D. (1997). *The Internet Guide for English Language Teachers*. Prentice-Hall Regents. (1998 edition also available). *Sperling's Internet Activity Workbook*. Prentice Hall.

📖 SUGGESTED READINGS

- Amritavatli, R. (1999). *Language as a Dynamic Text: Essays on Language, Cognition and Communication*. CIEFL Akshara Series. Allied Publishers.
- Bond, L., & Getat, (1980). *Reading Difficulties – Their Diagnosis and Correction*. Appleton – Century Crafts.
- Brinton, D. M., Snow, M. A., & Wesche, M. B. (1989). *Content-Based Second Language Instruction*. Newbury.
- Byrne, D. (1975). *Teaching Writing*. Longman.
- Dave, P. S. (2002). *Communicative Approach to the Teaching of Bachelor of Education English as a Second Language*. Himalaya Publishing House.
- Ibrahim, A. M. I. (2010). Information & Communication Technologies in ELT. *Journal of Language Teaching and Research*, 1(3), 211-214. Academy Publisher.
- Kohli, A. L. (2001). *Techniques of Teaching English in the New Millennium*. DhanpatRai.
- Lee, H. J., & Tsai, C.-C. (2007). *Exploring the Concept of Technological Pedagogical Content Knowledge (TPCK): Toward an Integrated Framework for Technology Integration*. *British Journal of Educational Technology*, 38(4), 519-535.
- Mishra, P., & Koehler, M. J. (2006). *Technological Pedagogical Content Knowledge: A Framework for Integrating Technology in Teacher Education*. *Journal of Teacher Education*, 57(1), 60-70.
- Shulman, L. S. (1986). *Those Who Understand: Knowledge Growth in Teaching*. *Educational Researcher*, 15(2), 4-14.
- Singh, Y. K. (2005). *Teaching of English*. APH Publishing Corporation.

Course Code:BED3PC013

Pedagogic Course

B.Ed. Degree Programme
Semester- III
CURRICULUM AND INSTRUCTIONAL RESOURCES IN HISTORY
EDUCATION

(2 Credits – 60 Hours)

Preface

The course aims to equip Prospective History Teachers with a comprehensive understanding of curriculum development, analysis and the effective utilization of instructional resources. By exploring the principles of curriculum design, development and evaluation, coupled with the selection and integration of diverse instructional materials, teachers can create engaging and effective learning environments that foster historical understanding and critical thinking.

 **COURSE OUTCOMES**

On successful completion of the course, the Prospective Teacher

1. Analyzes the process of curriculum designing in history
2. Examines existing History curricula for their strengths, weaknesses and alignment with learning objectives
3. Designs History curricula based on learner needs and pedagogical principles
4. Uses strategies for assessing curriculum effectiveness and making necessary adjustments
5. Categorizes the different resources for learning History

UNIT- I: CURRICULUM ASPECTS OF HISTORY EDUCATION (15 Hours)

Learning Outcomes	Content	Suggested Strategies and Approaches
1. Defines Curriculum. 2. Differentiates between curriculum and syllabus. 3. Lists out the principles of curriculum organization. 4. Analyzes the modern trends in curriculum construction.	1.1 Curriculum: Meaning and definitions Need and importance Differences between curriculum and syllabus Principles of curriculum development in History Approaches to curriculum development: Concentric, spiral, progressive, regressive, chronological, genealogical Types of curriculum: Activity based Child centered 1.2 Modern trends in curriculum construction	<ul style="list-style-type: none"> • Lecture • Electronic visual presentation • Seminar • Assignment • Discussion

UNIT-II: INSTRUCTIONAL RESOURCES IN LEARNING HISTORY (15 Hours)

Learning Outcomes	Content	Suggested Strategies and Approaches
1 Identifies the need and importance of instructional resources in teaching History. 2 Categorizes instructional resources. 3 Practices the use of globe, atlas and maps for teaching History. 4 Identifies different co-curricular activities.	2.1 Instructional resources Need for instructional resources in learning 2.2 Types of instructional resources Textbooks and supplementary reading Workbook and handbook Globe, Atlas and Maps – Types and uses 2.3 Charts, graphs, models, scrapbooks, newspapers 2.4 Co-curricular activities – Field trips, club activities, exhibitions 2.5 Electronic Resources Computer (Web Resources for Accessing Information) Interactive Whiteboard Smartphone	<ul style="list-style-type: none"> • Lecture • Electronic visual presentation • Seminar • Assignment • Discussion • Model making

**UNIT-III: SCHOOL AND COMMUNITY RESOURCES IN LEARNING
HISTORY (10 Hours)**

Learning Outcomes	Content	Suggested Strategies and Approaches
4. Identifies different types of resources for learning History. 5. Uses the relevant resources for learning history based on the content and area. 6. Reflects on the role of a history teacher in utilizing community resources.	3.1 Community resources in History: Importance 3.2 Historical resources: Palace, Museum, Forts, Archives 3.3 Methods of utilizing community resources Bringing community to school Taking school to community 3.4 Role of teachers in utilizing community resources 3.5 History laboratory: Necessary requirements in History laboratory	<ul style="list-style-type: none"> ● Lecture ● Electronic visual presentation ● Seminar ● Assignment ● Discussion ● Experience sharing

ASSESSMENT

1. Tests
2. Assignments and projects
3. Classroom participation and discussions
4. Quizzes
5. Curriculum development portfolio
6. Instructional resource analysis
7. Reflective journals

SUGGESTED ACTIVITIES (Any one)

1. Select a unit and prepare visual resources for teaching History.
2. Visit the identified historical important places and prepare a report.
3. Develop a unit or lesson plan based on a specific historical period or theme.

PRESCRIBED READINGS

- Aggarwal, J.C. (2003). *Teaching of History: A Practical Approach*. Sterling Publications.
- Bhata, R.L. (2004). *Contemporary Teaching of History* (2nd ed.). Surjeet Publications.
- Chandra, S.S., Shara, Amit., & Upadhyaya, A.K. (2014). *Teaching of Social Science*. New Delhi.
- Kaur, Jaskiran Vir. (n.d.). *Teaching of History*. Tandon Publications.

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- Kocchar, S.K. (2020). *Teaching of Social Studies*. Sterling Publishers.
 - Kumar, S.P.K., & Nowshad, P.P. (2009). *Social Studies in the Classroom: Trends and Methods*.
 - Mangal, S.K., & Mangal, Uma. (2023). *Pedagogy of Social Science*. PHI Learning Pvt. Ltd.
 - Ruhela, S.P. (2018). *Teaching of Social Science*. Neelkamal Publications.
 - Siddiqui, M.H. (2009). *Techniques of Classroom Teaching*. APH Publishing Corporation.
 - Singh, Y.K. (2009). *Teaching of History: Modern Methods*. APH Publishing Corporation.
 - Sivarajan, K., & Happy, P.V. (2022). *Methodology of Teaching Social Science*. Calicut University Co-operative Store.
 - SrinivasMurthi, Rao, I. Prasad., & Rao, Digumarti Bhaskara. (2004). *Methods of Teaching History*. Discovery Publishing.

SUGGESTED READINGS

- Anderson, W. L., & Krathwohl, D. R. (2001). *Taxonomy of Learning, Teaching and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*. Handbook. Longman Green & Co.
- Bloom, B. S. (1956). *Taxonomy of Educational Objectives: Cognitive Domain*. David McKay Co.
- Bruner, Jerome S. (1971). *Towards a Theory of Instruction*. Harvard University Press.
- Clark, L. H. (1974). *Teaching Social Studies in Secondary School* (2nd ed.). Macmillan.
- Dash, B. N. (1998). *Content and Methods of Teaching Social Studies*. Kalia Publishers.
- Deve, Pushkin (2009). *Methods and Techniques of Teaching*. Sterling Publishers.
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- Finer. (1953). *Teaching Techniques in Social Science*. Bank Street Publishing.

Course Code:BED3PC014

Pedagogic Course

B.Ed. Degree Programme

Semester- III

**CURRICULUM AND INSTRUCTIONAL RESOURCES IN MATHEMATICS
EDUCATION**

(2 Credits – 60 Hours)

Preface

The course aims to equip prospective mathematics teachers with a comprehensive understanding of curriculum development, analysis and the effective utilization of instructional resources. By exploring the principles of curriculum design, development and evaluation, coupled with the selection and integration of diverse instructional materials, teachers can create engaging and effective learning environments that foster mathematical thinking and problem-solving.

COURSE OUTCOMES

On successful completion of the course, the Prospective Teacher

1. Identifies the need and importance of curriculum development in Mathematics
2. Analyses the principles of curriculum development in Mathematics
3. Examines various resources for teaching Mathematics
4. Categorizes the different resources for teaching Mathematics
5. Selects various school-based and community-based resources useful for learning Mathematics

UNIT- I: CURRICULAR ASPECTS OF MATHEMATICS EDUCATION
(15 Hours)

Learning Outcomes	Content	Suggested Strategies and Approaches
1. Analyses the importance of curriculum development in Mathematics 2. Identifies the principles of curriculum development 3. Compares different types of curriculum	1.1 Curriculum development in Mathematics– Need and importance 1.2 Principles of curriculum development in Mathematics 1.3 Approaches to curriculum development: logical and psychological, topical and spiral, concentric 1.4 Types of curriculum: Activity based, Child centered	<ul style="list-style-type: none"> • Lecture • Electronic visual presentation • Seminar • Assignment • Discussion

UNIT-II: INSTRUCTIONAL RESOURCES IN LEARNING MATHEMATICS
(15 Hours)

Learning Outcomes	Content	Suggested Strategies and Approaches
1. Acquaints with the various supporting materials useful for learning Mathematics 2. Prepares various instructional materials for effectiveness of instruction	2.1 Print resources Textbooks Workbooks Handbooks Journals Magazines Newspapers 2.2 Visual resources Pictures Charts Flashcards Models 2.3 Electronic resources Computer Interactive Whiteboard Smartphone	<ul style="list-style-type: none"> • Lecture • Digital presentation • Seminar • Assignment • Discussion • Auto instruction

**UNIT-III: SCHOOL AND COMMUNITY RESOURCES IN LEARNING
MATHEMATICS (10 Hours)**

Learning Outcomes	Content	Suggested Strategies and Approaches
1. Analyses various school-based and community-based resources useful for learning Mathematics 2. Organizes co-curricular activities relevant to curriculum	3.1 School-based resources Mathematics Laboratory Mathematics Library 3.2 Community-based resources Field trip Mathematics Exhibition and fair 3.3 Co-curricular activities in mathematics Mathematics Club Recreational mathematics – Riddles, Puzzles, Paradoxes, Magic squares, Beautiful number patterns	<ul style="list-style-type: none"> ● Lecture ● Digital presentation ● Seminar ● Assignment ● Discussion ● Auto instruction

ASSESSMENT

1. Tests
2. Assignments and projects
3. Classroom participation and discussions
4. Quizzes
5. Curriculum development portfolio
6. Instructional resource analysis
7. Reflective journals
8. Seminar presentation

SUGGESTED ACTIVITIES (Any one)

1. Prepare a report on curriculum development in Mathematics.
2. Prepare a report on the comparison of mathematics textbooks of state board and CBSE syllabus.
3. Prepare a puzzle booklet in Mathematics

📖 PRESCRIBED READINGS

- Aggarwal, J. C. (2008). *Teaching of Mathematics*. Vikas Publishing House.
- Bishnoi, U. (2008). *Teaching of Mathematics*. Lal Book Depot.

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- James, A. (2005). *Teaching of Mathematics*. Neelkamal Publications.
 - James, A. (2006). *Techniques of Teaching of Mathematics*. Neelkamal Publications.
 - Kulshreshtha, A. K. (2008). *Teaching of Mathematics*. R. Lall Books Depot.
 - Kumar, S., & Ratnalikar, D. N. (2003). *Teaching of Mathematics*. Anmol Publishing House.
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 - Mangal, S. K., & Mangal, S. (2023). *Learning and Teaching*. PHI Learning Private Limited.
 - Shakuntala, D. (2000). *More Puzzles*. Orient Paperbacks.
 - Sidhu, K. S. (2000). *Teaching of Mathematics*. Neelkamal Publications.
 - Sivarajan, K., & Wahid, A. A. (2022). *Teaching of Mathematics*. Lal Bok Depot.
 - Soman, K., & Sivarajan, K. (2014). *The Methodology of Teaching Mathematics*. Lal Bok Depot.

SUGGESTED READINGS

- Aggarwal, S. M. (2001). *A Course in Teaching of Modern Mathematics*. DhanpatRai Publishing House.
- Bhasin, Sonia. (2005). *Teaching of Mathematics: A Practical Approach*. Himalaya Publishing House.
- Bruner, J. S. (1971). *Towards a Study of Instruction*. Harvard University Press.
- Ediger, M., & Rao, D. B. (2000). *Teaching Mathematics Successfully*. Discovery Publishing House.
- Gagne, R. M. (1967). *Learning and Individual Differences*. Charles E. Merrill Books.
- Reymond, B. (2000). *Math Tricks, Puzzles and Games*. Orient Paperbacks.
- Siddiqui, M. H. (2007). *Teaching of Mathematics*. APH Publishing House.

*Course Code:BED3PC015**Pedagogic Course***B.Ed. Degree Programme****Semester- III****CURRICULUM AND INSTRUCTIONAL RESOURCES IN PHYSICAL
SCIENCE EDUCATION****(2 Credits – 60 Hours)****Preface**

The course aims to equip Prospective Physical Science Teachers with a comprehensive understanding of curriculum development, analysis and the effective utilization of instructional resources. By exploring the principles of curriculum design, development and evaluation, coupled with the selection and integration of diverse instructional materials, teachers can create engaging and effective learning environments that foster scientific inquiry and critical thinking.

 COURSE OUTCOMES

On successful completion of the course, the Prospective Teacher

1. Identifies the need and importance of curriculum development in physical science
2. Summarizes the principles, approaches and curricular project in physical science
3. Analyses variety of instructional resources and utilize them effectively in the learning process
4. Categorizes various resources use for effective transaction
5. Selects school and community resources used in teaching and learning physical science

**UNIT- I: CURRICULAR ASPECTS OF PHYSICAL SCIENCE EDUCATION
(15 Hours)**

Learning outcomes	Content	Suggested Strategies and Approaches
1. Infers the meaning and importance of curriculum 2. Compares curriculum and syllabus 3. Analyses various approaches to curriculum construction 4. Identifies the various curricular improvement project	1.1 Curriculum Concept: Definition Curriculum and Syllabus: Difference Functions of Curriculum Types of Curriculum: Subject-centered, Approaches to Curriculum Construction 1.2 Curricular Improvement Projects PSSC CHEM Study CBA NCERT	<ul style="list-style-type: none"> • Lecture • Discussion • Team teaching • Digital presentation • Small group discussion • Seminar

UNIT-II: INSTRUCTIONAL RESOURCES IN LEARNING PHYSICAL SCIENCE (15 Hours)

Learning Outcomes	Content	Suggested Strategies and Approaches
1. Explains the various resources available for teaching physical science. 2. Locates the nearby resources 3. Uses the relevant resources for transacting the content	2.1 Visual Resources Pictures Flashcards Charts Posters Photographs Models 2.2 Printed Resources Science Textbook: Functions and Characteristics Vogel's Spot Check Evaluation Scale Handbook for Teachers: Advantages Workbook for Learners: Advantages Supplementary Reading Materials 2.3 Electronic Resources Computer (Web Resources for Accessing Information) Interactive Whiteboard Smartphone	<ul style="list-style-type: none"> • Lecture • Discussion • Seminar • Digital Presentation • Peer learning

**UNIT-III: SCHOOL AND COMMUNITY RESOURCES IN LEARNING
PHYSICAL SCIENCE (10 Hours)**

Learning Outcomes	Content	Suggested Strategies and Approaches
1. Explains the various school based and community based learning resources. 2. Uses the relevant Resources for learning physical science	3.1 School-Based Resources Science Library: Objectives Organisation Importance 3.2 Laboratory Resources Need and Importance Structure and Design Maintenance of Various Registers Accidents and First Aids 3.3 Science Club Organisation Values 3.4 Community Resources Science Centers Science Exhibitions/Fairs Field Visits	<ul style="list-style-type: none"> • Lecture • Discussion • Seminar • Digital Presentation • Peer learning

ASSESSMENT

1. Tests
2. Assignments and projects
3. Classroom participation and discussions
4. Quizzes
5. Curriculum development portfolio
6. Instructional resource analysis
7. Reflective journals

SUGGESTED ACTIVITIES (Any one)

1. Select a unit and prepare visual resources for teaching physical science.
2. Organize a visit to science centre in your locale and prepare a report.
3. Design a Physical Science Lab for secondary level school for 40 students.

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Course Code:BED3EPC03

EPC

B.Ed. Degree Programme
Semester-III
YOGA FOR HUMAN EXCELLENCE
(2 Credits- 60 Hours)

📖 COURSE OUTCOMES:

On successful completion of the course, the Prospective Teacher

1. Traces the history of yoga with Indian philosophy
2. Demonstrate yoga based on the principles of yoga
3. Differentiates yoga from meditation
4. Discusses causes of different life style diseases and its treatment
5. Examines the treatment through yoga for hypertension, diabetics etc.
6. Establishes harmonious relationship with society
7. Identifies personal problems and their solutions

Unit I - Introduction to Yoga

History of Yoga and Indian Philosophy, 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
Branches of Yoga and Uses

Unit II - Fundamentals of Yoga

Asanas (postures)
Pranayama (breathing techniques)
Meditation and relaxation techniques

Unit III - Yoga for Healthy Lifestyles

Treatment through yoga for Hypertension, Diabetic, Obesity and Thyroid,
Asthma and Sinusitis
Neutralization of anger and Eradication of worries
Harmonious relationship with society
Virtuous way of living
Benefits of Meditation

Assessment

- Presentations
- Group Projects
- Observations
- Meditation Skill practice

Activities (Any five)

1. Prepare a report on yoga.
2. Collect the pictures of warm-up poses for yoga and give description about it.
3. Sit in a meditative posture and meditate for 20 to 30 minutes. Write down your experience in detail.
4. Prepare a seminar on the topic 'journey of yoga from India to the world'.
5. Prepare a chart on the different stages of Suryanamaskar.
6. International yoga day celebration and report preparation.
7. Perform specific yogasanas for the relief of back pain and prepare a video of it.
8. Organise a camp on 'Awareness of Yoga' in your practice teaching school and prepare a report on it.
9. Prepare a power point presentation on 'Sinusitis and any two asanas to get relief from Sinusitis'.
10. Prepare a poster presentation highlighting Yoga for obesity.

Course Code: *BED3EPC04*

EPC

B.Ed. Degree Programme

Semester- III

LIFE SKILL EDUCATION

(2 Credits-60 Hours)

✍ COURSE OUTCOMES

On successful completion of the course, the Prospective Teacher

1. Identifies the core life skills
2. Selects the suitable strategies for life skill education
3. Investigates on emotional capabilities and emotional intelligence
4. Uses the psychological strategies to manage life style related stress
5. Organizes brain storming on different types of emotions and prepare collages
6. Prepares case study on study skills

Unit I - Understanding Life Skills

Definition and scope of life skills-Definition of WHO

Importance of life skills in the 21st century

Life skills and holistic development

Integrating life skills into the school curriculum

Unit II - Personal and Professional Development

Self-awareness and self-esteem: Understanding self-worth, positive self-talk, goal setting, overcoming self-doubt

Effective communication: Verbal and nonverbal communication, active listening, assertiveness, conflict resolution, public speaking

Time management and productivity: Prioritizing tasks, time management techniques, goal setting, overcoming procrastination

Stress management and emotional intelligence: Identifying stress triggers, relaxation techniques, managing emotions, empathy, understanding others

Life skills for problem solving and decision making

Unit III - Interpersonal and Social Skills

Interpersonal relationships: Building and maintaining healthy relationships, communication styles, conflict resolution

Teamwork and collaboration: Effective teamwork, leadership skills, conflict resolution within teams

Cultural awareness and diversity: Understanding different cultures, appreciating diversity, promoting inclusivity

Ethical decision-making: Ethical principles, ethical dilemmas, making informed decisions

Assessment

- Presentations
- Group projects
- Observations
- Self-evaluations
- Role play

Activities (Any five)

1. Introspect and list your inner qualities that make you unique.
2. Identify your strengths, weakness likes and dislikes.
3. Prepare your goal statement.
4. Role play the communication styles and evaluate your dominant communication style.
5. Appreciate different kinds of relationship you maintain in your life and suggest from your own experience the healthy relationship recipe.
6. Describe the situations of your stress, the symptoms you experienced, the impacts and tips for managing stress that you practically applied.
7. Brainstorm the different types of emotions you experience and present the emotions collage that represent different emotions by pictures/drawings/sketch etc.
8. Conduct a Case study on Study skills of your friend.
9. Create a monthly schedule of your time management.
10. Identify 10 tips to tame your temper.