## Syllabus

## B. Ed.

## Directorate of Distance Education Tripura University <br> (A Central University)

Suryamaninagar-799022

## B.Ed. Part-I

## Area A: Foundation of Education

A1 - Education and Development
A2 - Education: An Evolutionary Perspective
A3 - Contemporary Issues and Concerns in Secondary Education

Area B: Pedagogical Knowledge
B1 - Learning and Teaching
B2 - Assessment, Evaluation and Learning Resources

## B.Ed. Part-II

## Area C: Pedagogical Content Knowledge

C1 - School subject - 1
C2 - School subject - 2
(Candidates has to opt for two method subjects, from the following subjects)

Mathematics
Life Science
Bengali
Economics and Civics
Business Organization Accountancy

Physical Science
History
English
Sanskrit
Geography

Area D: School and Practical Based Experiences
D1 - Sessional Activities / Assessment
D2 - Internship in Teaching

## B.Ed. Part-I

## AREA A: FOUNDATIONS OF EDUCATION

## Course AI: Education and Development

## Course Objectives

1. To understand the relationship between Education and individual and National Development.
2. To examine the influences of political and policy decisions on Education and its aims, content and procedures.
3. To understand how Education derives its relevance from socio-cultural contexts and to critically reflect on the influence of education on quality of life
4. To analyze the social context of education and its bearing upon school system
5. To examine the changing emphases on Education in the context of Globalization, Liberalization and Privatization

## Course Contents

## Unit-1: Education for National Development

a) National development - meaning, scope and different view points
b) Indicators of national development - Education Commission, 1964-66, Planning Commission, World Bank, NPE-1986
c) Education for Sustainable Development (ESD): Components: Brundtland Commission 1987 and UNESCO, Aims of education for SD, Areas of SD (United Nations Division for Sustainable Development)
d) Role of education in ensuring sustainable development,
e) The perspective of education for national development in the NCF-2005

## Unit-2: Emerging Interface between Governmental Policies and Education

a) Education as a key area of public policy- relevance, essentiality
b) The guidelines followed in formulating National and Tripura Education Policies; relationship between constitutional provisions and educational policies- Right to Education
c) Implementation of an educational policy - macro level requirements; action plans and programme guidelines as tools for implementation; State (Tripura) and Centrally Sponsored Schemes of Education
d) Financial supplementation: grant-in-aid and developmental grants for implementing educational policy- the role of planning commission

## Unit-3: Education and Economic Development

a) Education for economic development- its meaning and nature
b) Education as development of human resource: Education for Employability academic concerns in education, Consumer driven educational programmes
c) Education as an investment
d) Privatization, private initiative, and liberalization in education

Unit-4: Education and Individual Development
a) Education for development of individual capabilities, enhancement of quality of life
b) Education and Actualization of individual aspirations
c) Education for development of responsible citizens
d) Education \& development of life skills: preparation of individuals for the 21st century

Unit-5: Education and Socio-cultural Context
a) Education as an instrument of social change- influence of education on society, family and their practices
b) Socio-cultural influences on the aims and organization of education
c) Social acceptability of educational policy and practice
d) Emerging trends in societies and their repercussions on education: globalization and internationalization of education

## References

Agarwal, J.C. \& Agarwal S.P. (1992). Role of UNESCO in Education, Vikas Publishing House, Delhi. Anand, C.L. et.al. (1983). Teacher \& Education in Emerging in Indian Society, NCERT, New Delhi. Govt. of India (1986). National Policy on Education, Ministry of HRD, New Delhi.
Govt. of India (1992). Programme of Action (NPE). Min of HRD.
Mukherji, S.M., (1966). History of Education in India, Acharya Book Depot, Baroda.
Naik, J.P. \& Syed, N., (1974). A Student's History of Education in India, MacMillan, New Delhi,
NCERT (1986). School Education in India - Present Status and Future Needs, New Delhi.
Salamatullah, (1979). Education in Social context, NCERT, New Delhi.
Ministry of Education. 'Education Commission "Kothari Commission". 1964-1966. Education and National Development. Ministry of Education, Government of India 1966.
Learning without Burden, Report of the National Advisory Committee. Education Act. Ministry of HRD, Department of Education, October, 2004.
National Policy on Education. 1986. Ministry of HRD, Department of Education, New Delhi.
Seventh All India School Education Survey, NCERT: New Delhi. 2002
UNDPA. Human Development Reports. New Delhi. Oxford: Oxford University Press.
UNESCO. (2004) Education for All: The Quality Imperative. EFA Global Monitoring Report. Paris. World Bank, (2004). Reaching The Child: An Integrated Approach to Child Development. OUP, Delhi.

## Course A2: Education: An Evolutionary Perspective

## Course objectives

The student teachers will be able to -

1. analyze and understand educational concepts, their premises and contexts that are unique to education.
2. understand and appreciate the nature and the purpose of education, their practical ramifications in the school context.
3. analyze the philosophical reflections and educational thoughts of great Educational thinkers
4. understand the nature of knowledge in Education and its contribution to status of education as a discipline and interdisciplinary in nature
5. inquire into the roles of teacher, school and the community in the changing perspectives of pedagogy
6. appreciate the historical development of education as a system and its evolving structures
7. examine the concerns and issues related to education system
8. understand the importance of systemic reforms in achieving quality education

## Course Contents

## Unit -1: Education as an evolving concept

a) Meaning of education: ancient to present - education as an organized, institutionalized, formal and state sponsored activity
b) Concepts in education and their changing connotations: school, curriculum, teacher, learner, teaching, learning, instruction, freedom, autonomy and control in relation to the child and teacher
c) Expansion in modes of education: face-to-face (tutorial, small group, large group) to distant modes of education: oral/aural to digital; individualized and group based.

## Unit-2: Aims of education

a) Changing aims of Education in the context of globalization
b) Sources of Aims of Education: Educational aims as derived from the Constitution of India
c) Ideas of educational thinkers such as Gandhi, Tagore, Aurobindo, Dewey, Frère and lllich

## Unit-3: Evolving Knowledge base in Education

a) Nature of knowledge in education: concepts, statements, educational viewpoints
b) Theories of knowledge and their educational significance - Logical Empiricism, Logical Positivism and Language Analysis; Emerging Knowledge base in education
c) Differences between information, knowledge, belief, and opinion

## Unit-4: Learning Environment: the changing scenario

a) Changes in Teacher roles, learner participation, knowledge emphasis, learning resources and physical space
b) Shift in pedagogy: Knowledge focused to teacher focused to learner focused learning environment
c) Shift in learning environments: Unimodal to multi-mediated, school based to community linked, and real to virtual learning environments; The open-distance learning environment

## Unit-5: Systems and structures in school education

a) Education as a system: meaning and nature
b) Differentiation of educational structures: stage wise; stream wise;
c) Role of state-centre: need for a national system of education
d) Systemic reforms in education: meaning and need. Demands from the secondary education system upon achieving universal elementary education

## References

Cole Luella, A History of Education: Socrates to Montessori, Holt, Rinehart \& Winston, NY, 1950.
Power, Edmund, J., Main Currents in the History of Education, McGraw Hill Book Co. Inc., NY, 1962.
Lakshmi, T.K.S. and M.S.Yadav, "Education: It's Evolving Characteristics", in New Frontiers in Education, Vol. XXII, No.4, Oct-Dec., 1992
Butchvarov, P. (1970), The Concept of Knowledge, Evanston, Illinois: North Western University Press.
Chomsky, N (1986). Knowledge of Language, Prager, New York.
Datta, D.M. (1972). Six ways of Knowing. Calcultta University Press, Calcultta.
Dewey, John. 'My Pedagogic Creed', in D.J. Flinders and S.J. Thorton(eds.) The Curriculum Studies Reader, Routledge: New York, 1997.
Dewey, John (1997) Experience and Education, Touchstone, New York
Dewey, John (1956). The Child and the Curriculum and School and Society, University of Chicago Press, Chicago, Illinois, U.S.A.
Keddie, N.(1971) : Classroom Knowledge, in. M.F.D Young.
Krishna Murthy, J. (1947) On Education, Orient Longman, New Delhi.
Kumar Krishna (1996). Learning From Conflict, Orient Longman, New Delhi.
Peters, R.S. The Concept of Education, Routledge, UK, 1967.
Margaret, K.T. The open Classroom, Orient Longman: New Delhi, 1999.
Hirst. Paul, Knowledge and curriculum
Prema Clarke (2001). Teaching \& Learning: The Culture of pedagogy, Sage Publication, New Delhi. P.H. Phenix,(1964). Realms of Meaning. MacGraw-Hill, New York.

Steven H. Cahn (1970). The Philosophical Foundation of Education, Harper \& Row Publishers, NY.

## Course A3: Contemporary Concerns and Issues in Secondary Education

## Course Objectives

The student teacher will be able to

1. Understand the importance of universalisation of secondary education and the constitutional provisions for realizing it
2. Examine the issues and concerns related to universalisation of secondary education
3. Analyse the strategies used for realization UEE and the outcomes of their implementation.
4. Realize the need and importance of equity and equality in education and the constitutional provisions for it.
5. Identify the various causes for inequality in schooling
6. Realize the importance of Right to Education and the provisions made for realizing it.
7. Understand the importance of indicators, standards and strategies for enhancement of quality in secondary schools
8. Understand the need and importance of education for peace and the national and international efforts towards it.
9. Examine the issues and concerns related to global and local environmental crisis
10. Explore the strategies for sensitizing the learners towards environmental conservation
11. Understand the Action measures taken for Environmental Conservation and its sustainability at the international level.
12. Explore the school curriculum for integrating environmental concerns

## Course Contents

## Unit-1: Universalisation of Secondary Education

a) Constitutional provisions for Universalisation of Secondary Education (USE)
b) Right to education and its implications for USE
c) Impact of realizing the UEE on secondary education: access, enrolment, participation and achievement
d) USE: status, issues and strategies for realization of targets

## Unit-2: Equity and Equality in Education

a) Meaning of Equality of Educational Opportunities, provision and outcomes; constitutional provisions for ensuring equity
b) Nature and forms of inequality including dominant and minor groups, gender
c) Inequality in schooling: public-private schools; Rural-urban-tribal schools, and differential school systems - schools for education of the challenged
Unit-3: Quality in education
a) What is 'quality education'?
b) Indicators of quality: related to learning environment, Student Outcomes
c) Outcome improvement through: Setting standards for performance; supporting inputs known to improve achievement, Adopting flexible strategies for the acquisition and use of inputs, and Monitoring performance.
d) Enhancement of quality in secondary schools with reference to Tripura

## Unit-4: Peace Education

a) Meaning and relevance of Peace: national and international contexts
b) Dangers to Social Security: terrorism, war, natural calamities and impact on quality of life
c) Peace context: conditions for promotion of peace, UNESCO's concerns on Peace and Understanding
d) Role of the teacher as well as education in promotion of peace: implications for pedagogy

## Unit-5: Education for Conservation of Environment

a) Conservation of environment- an imminent need
b) Need for sensitizing learners towards concerns of environmental conservation
c) Integration of environmental concerns in curriculum
d) Role of teacher in promoting conservation

## References

Anand, C.L. et.al. (1983). Teacher and Education in Emerging Indian Society, NCERT, New Delhi. NCERT (1993). Teacher and Education in Emerging Indian Society, New Delhi Govt. of India (1986). National Policy on Education, Min. of HRD, New Delhi. Govt. of India (1992). Programme of Action (NPE). Min of HRD. Mohanty, J., (1986). School Education in Emerging Society, Sterling Publishers. MacMillan, Delhi. NCERT (1986). School Education in India - Present Status and Future Needs, New Delhi. Ozial, A.O. 'Hand Book of School Administration and Management', London, Macmillan. Salamatullah, (1979). Education in Social context, NCERT, New Delhi.
Ministry of Education. Education and National Development (1964-'66), Government of India 1966.
National Policy on Education. 1986. Ministry of HRD, Department of Education, New Delhi.
Seventh All India School Education Survey, NCERT: New Delhi. 2002
UNDPA. Human Development Reports. New Delhi. Oxford: Oxford University Press.
UNESCO. (2004) Education for All: The Quality Imperative. EFA Global Monitoring Report. Paris.
Varghese, N.V. (1995). School Effects on Achievement: A Study of Government and Private Aided Schools in Kerala. In Kuldip Kumar (Ed.) School effectiveness and learning achievement at primary stage: International perspectives. NCERT. New Delhi.
UNESCO's report on Education for sustainable development.
Ministry of Law and Justice (2009) Right to Education. Govt of India
Govt of India (1992) Report of Core group on value orientation to education, Planning Commission Arvind Kumar (2003). Environmental challenges of the 21st century, APH Publishing, New Delhi

# AREA B: PEDAGOGICAL KNOWLEDGE 

## Course B1: Learning and Teaching

## Course Objectives

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

1. Develop an understanding about the impact/influence of socio cultural context in shaping human development, especially with respect to the Indian context;
2. Develop an understanding of dimensions \& stages of human development \& developmental tasks
3. Understand the range of cognitive capacities among learners
4. Reflect on their own implicit understanding of the nature and kinds of learning
5. Gain an understanding of different theoretical perspectives on learning
6. Appreciate the critical role of learner differences and contexts in making meanings, and draw out implications for schools and teachers
7. Demonstrate his/her understanding of the role of a teacher at different phases of instruction
8. Write instructional objectives teaching of a topic
9. Demonstrate his/her understanding of different skills and their role in effective teaching
10. Use instructional skills effectively

## Course Contents

## Unit 1: Understanding the Learner: Their Differences

a) Developmental characteristics of a child and an adolescent: physical, cognitive, social, emotional, moral and language;
b) Factors influencing development such as heredity, nutrition, child-rearing practices, siblings and peers
c) Differences between individual learners: multiple intelligence, skills and competencies, values and personality
d) Understanding differently abled learners: slow learners and learning disabled

## Unit 2: Understanding Learning

a) Nature of learning: learning as a process and learning as an outcome
b) Types of learning: conceptual, attitudes, values and skills
c) Factors related to the biological and hereditary factors and method of learning; attention, motivation and readiness as factors influencing scholastic learning
d) An analysis of the relevance and applicability of various schools of learning theories for different kinds of learning situations

## Unit 3: Organizing learning: Issues and Concerns

a) Individual versus group learning: issues and concerns with respect to organizing learning in a classroom such as study habits, self-learning and learning to learn skills
b) Organizing learning in heterogeneous classroom groups - socio-economic background, abilities and giftedness.
c) Paradigms for organizing learning: teacher centric, subject centric and learner centric

## Unit 4: Understanding Teaching

a) Teaching as a planned activity - elements of planning; Teacher's professional identity- what does it entail?
b) Principles underlying teaching and their influence on the planning for teaching
c) Phases of teaching: pre-active, interactive and post-active.
d) The general and subject related skills and competencies required in teaching

## Unit 5: Phases of Teaching

a) An analysis of teacher roles and functions in the pre-active phase, interactive phase and post-active phase.
b) Approaches to Organizing Learning - Approaches to Individualized Instruction: Computer Managed Instruction, Programmed Instruction, and Learning Activity Packages;
c) Approaches to Small Group \& Whole Group Instruction: Cooperative \&Collaborative approaches to learning, Brain storming, Role Play \& Dramatization, Group Discussion, Simulation and Games, Debate, Quiz and Seminar

## References

Benjafield, J.G. (1992). Cognition, Prentice Hall, Englewood Cliffs.
Brown, J.S., Collins A and Dugrid, P (1989). Situated Cognition and the Culture of Learning, Educational Researcher; 32-42.
Denise Pope (2001), Doing School: How we are creating a Generation of Stressed Out, Materialistic, and Miseducated Students. New Haven: Yale University Press.
Gagné, R. M. (1985) The Conditions of Learning and Theory of Instruction (4th edition). New York: Holt, Rinehart and Winston
Gardner, Howard (1989). Frames of Mind. The Theory of Multiple Intelligences, Basic Books, NY.
Jeanne, Ellis Ormrod. Educational Psychology: Developing Learners. Fourth Edition
Jeffrey Arnett (2007), Adolescence and Emerging Adulthood: A Cultural Approach. (3rd. ed.). Upper Saddle River, N.J.: Pearson.
Lindgren, H.C. (1980). Educational Psychology in the Classroom, Oxford University Press, NY.
Patricia A. Alexander, Philip H. Winne (2006) Handbook of Educational Psychology
Sarangapani M. Padma(2003.), Constructing School Knowledge : An Ethnography of learning in an Indian Village, Sage Publication
Sturt Mary, Oakden, E.C. (1999) Modern Psychology and Education, Routledge.
Vygotsky, L.S. Mind in Society, Harvard University Press: Cambridge, 1978. Chapter 6.
Woolfolk, A.E. (2009) Educational Psychology (11th ed.) (My Education Lab Series) Prentice Hall

Bloom, B S., Englehart M D, Furst E J, Hill W.H.\& Khrathwohl, D R $(1956,1964)$ Taxonomy of Educational Objective Handbook 1, Cognitive Domain, Handbook 2, Affective Domain, Longman, London

Buch, M B and Santharam M R (1972) Communication in Classroom, CASE, Faculty of Ed. \& Psy. M S Univ. Baroda
Davis, Irork (1971) The Management of Learning, Mc Graw Hill, London
Jangira N K \& Ajit Singh (1982) Core Teaching Skills: The Microteaching Approach, NCERT, New Delhi Nagpure, V. (1992) Teacher Education at Secondary Level, Himalaya Publishing House, 'Ramdoot', Dr Balerao Marg, Girgaon, Bombay 400004
Passi, B K (1976) Becoming better teacher: Micro-teaching Approach, Sahitya Mudranalaya, Ahmedabad Sharma, R A (1983) Technology of Teaching; International Publishing House, Meerut Kumar, K L (1996) Educational Technology; New Age International (P) Ltd Publishers, New Delhi Singh, L C Microteaching: Theory and Practical, National Psychological Corporation, Agra

## Course Objectives:

The student teachers will be able to

1. Understand the nature of assessment and evaluation and their role in teaching-learning process.
2. Understand the perspectives of different schools of learning on learning assessment
3. Realise the need for school based and authentic assessment
4. Examine the contextual roles of different forms of assessment in schools
5. Understand the different dimensions of learning and the related assessment procedures, tools and techniques
6. Develop assessment tasks and tools to assess learners performance
7. Analyse, manage, and interpret assessment data
8. Analyse the reporting procedures of learner's performance in schools
9. Develop indicators to assess learner's performance on different types of tasks
10. Examine the issues and concerns of assessment and evaluation practices in schools
11. Understand the policy perspectives on examinations \& evaluation \& their implementation practices
12. Traces the technology bases assessment practices and other trends at the international level
13. Prepare and use appropriate instructional material for effective classroom transaction
14. Design and develop an ICT integrated learning resource
15. Critically reflect on the suitability of learning resources planned in teaching-learning
16. Organise learning with active participation of learners- individually and in groups

## Course Contents

## Unit 1: Perspectives on Assessment and Evaluation

a) Meaning of Assessment, Measurement, Tests, Examination, Appraisal, and Evaluation and their interrelationships
b) Classification of assessment: based on purpose (prognostic, formative, diagnostic and summative) scope (teacher made, standardized), attribute measured (achievement, aptitude, attitude, etc.), mode of response (oral and written; selection and supply), nature of interpretation (norm referenced, criterion referenced)
c) Need for school based assessment and continuous and comprehensive assessment

## Unit 2: Assessment of Learning

a) Dimensions of learning: cognitive, affective and performance
b) Assessment of cognitive learning: types and levels of cognitive learning: understanding and application; thinking skills -convergent, divergent, critical, problem solving, and decision making; items and procedures for their assessment
c) Assessment of affective learning: attitude and values, interest, self-concept; items and procedures for their assessment
d) Assessment of Performance: tools and techniques for assessment of skills

Unit 3: Planning, Construction, Implementation and Reporting of assessment
a) Consideration of what and why to assess (content and objectives); differentiation between instructional, learning and assessment objectives and stating of Assessment Objectives - Need for integrated objectives.
b) Deciding on the nature and form of assessment - oral tests and written tests; open book examination; weightage to content, objectives, allocation of time; Preparation of a blue print
c) Construction/selection of items; Guidelines for construction of test items; assembling the test items; Guidelines for administration and scoring procedure
d) Analysis \& Interpretation of Students' Performance- processing test performance: calculation of percentages; central tendency measures; graphical representations; and interpreting performance.
e) Reporting Student Performance - content and formats; Progress reports, Cumulative records, Profiles, and Open house

Unit 4: Issues, Concerns and Trends in Assessment and Evaluation
a) Existing Practices: Unit tests, half- yearly and annual examinations, semester system, Board examinations and Entrance tests.
b) Management of assessment and examinations, Use of question bank
c) Grading: Concept, Types and Application: indicators for grading; CBSE and State evolved indicators
d) Issues and Problems: Marking vs. Grading, Non-detention policy, Objectivity vs. Subjectivity.

## Unit 5: Learning Resources for Classroom Teaching

a) Meaning, purpose, steps in development and guidelines for use of the Print, Audio and Visual resources
b) Print Resources, Audio Resources, Visual Resources - nature of experiences provided by them, their making and possibilities of using them as learning resources
c) Audio-visual and ICT resources - television, computer, multimedia, interactive white board, OHP, internet
d) Media selection, utilization and integration into teaching and learning - learning resources for different pedagogies: a classification of learning resources based on teaching objectives.

Bransford, J., Brown, A.L., \& Cocking, R.R. (Eds.). (2000). How people learn: Brain, mind, experience, and school. Washington, DC: National Academy Press.
Burke, K. (2005). How to assess authentic learning (4th Ed.). Thousand Oaks, CA: Corwin.
Burke, K., Fogarty, R., \& Belgrad, S (2002). The portfolio connection: Student work linked to standards (2nd Ed.) Thousand Oaks, CA: Corwin.
Carr, J.F., \& Harris, D.E. (2001). Succeeding with standards: Linking curriculum, assessment, and action planning. Alexandria, VA: Association for Supervision and Curriculum Development.
Danielson, C. (2002). Enhancing student achievement: A framework for school improvement. Alexandria, VA: Association for Supervision and Curriculum Development.
Gentile, J.R. \& Lalley, J.P. (2003). Standards and mastery learning: Aligning teaching and assessment so all children can learn. Thousand Oaks, CA: Corwin.
Guskey, T.R., \& Bailey, J.M. (2001). Developing grading and reporting systems for student learning. Thousand Oaks, CA. Corwin.
Natrajan V.and Kulshreshta SP(1983). Assessing non-Scholastic Aspects-Learners Behaviour, New Delhi: Association of Indian Universities.
NCERT(1985). Curriculum and Evaluation, New Delhi: NCERT
Newman, F.M. (1996). Authentic achievement: Restructuring schools for intellectual quality. San Francisco, CA: Jossey-Bass.
Nitko, A.J. (2001). Educational Assessment of Students (3rd ed.). Upper Saddle River, NJ: Prentice Hall.
Norris N. (1990) Understanding Educational Evaluation, Kogan Page Ltd.
Singh H.S. (1974) Modern Educational Testing. New Delhi: Sterling Publication
Ward \& Ward (2007) Assessment in classrooms.
Dale Edgar (1961), Audio-visual Methods in Teaching (Revised) Hoft, Rinehart and Winston, NY.
Das R C (1993), Educational Technology - A Basic Text, Sterling Publishers, New Delhi.
Kumar, K L (1996) Educational Technology; New Age International (P) Ltd Publishers, New Delhi.
Becker, H. J. \& Riel, M. M. (2000). Teacher professional engagement \& constructivist compatible computer use (Report No.7). Irvine, CA: Centre for Research on Information Technology \& Organizations.
Majumdar, S. (2005). Regional Guidelines for Teacher Development for Pedagogy Technology Integration. UNESCO. Bangkok. Thailand

## B.Ed. Part-II

## AREA C: PEDAGOGICAL CONTENT KNOWLEDGE

## Course Cl and C 2

Note: The courses for different pedagogical content knowledge worked out on the basis of the suggested course guidelines or criteria for Pedagogy of school subjects, already presented by NCTE. Further, the course structure for different subject specific pedagogy courses suitably developed under a combination of the following themes as illustrated in various Pedagogy courses.

1) Nature of the Subject
2) Nature of Learning the Subject
3) Planning for Organising Learning in the Subject
4) Planning of a Lesson for teaching - learning process
5) Strategies for Learning Various Kinds of Subject Matter Contents
6) Assessment of Learning in the Subject
7) Learning Resources and their Organisation
8) Contextual Issues in Learning the Subject Matter Content
9) Research and Development in Teaching and Learning the Subject
10) Professional Development of the Teacher of the Subject

## DETAILED DESCRIPTION OF DIFFERENT PEDAGOGY COURSES:

## PEDAGOGY OF GEOGRAPHY

## Course Objectives:

Upon completion of the course the student-teachers will -

1. Understand the modern concept of Geography.
2. Understand the aims and objectives of teaching Geography.
3. read and interpret maps, graphs and weather charts
4. organise co-curricular activities in Geography
5. develop different skills in using computer
6. acquire knowledge on the current trends in Geography Curriculum
7. Prepare yearly plan, unit plan, and lesson plan for different classes and use them effectively.
8. Critically evaluate the existing school syllabus and review the text book of Geography.
9. Apply appropriate methods and techniques of teaching of particular topic to different levels.
10. Arrange field trips and local surveys.
11. Prepare achievement test and diagnostic test, administration of the test, analysis of result and make suggestion for remedial teaching.

## Course Contents

## Unit I

Nature, Scope and objectives
a) Changing concept of Geography
b) Its place and scope (importance)
c) Aims and objectives of Geography teaching at secondary level, its role in developing international understanding.
d) Correlation of Geography with other school subjects.

## Curriculum and Planning

a) Characteristics of a good geography curriculum
b) Principles of curriculum construction
c) Critical Appraisal of geography syllabus (TBSE).
d) Planning daily lesson plan and Unit plan - writing instructional and behavioural objectives and learning outcomes.

Unit II

## Learning Geography

Perspectives of learning and teaching of Geography - Chorological concept and Chronological concept, acquisition of skills related to map, globe etc. of geographical thinking; Qualitative and Quantitative revolutionary impact in Geography.

Unit III
Methods and approaches
a) Regional method, Demonstration, Inductive, Deductive, Project, Laboratory Method.
b) Field trips, local and study tour.
c) Other Innovative practices - Programmed Learning, Computer Assisted Instruction, GIS.
Evaluation
a) Tools and techniques of evaluation in geography.
b) Achievement Test
c) Different types of questions.

Unit IV d) Statistics and graphical representation in Geography.
a) Teaching aids, lab equipment.
b) Geography room/Laboratory.
c) Resource material and use of local resources in teaching Geography.
d) Co-Curricular activities.
e) Films, Film strips, overhead projector, Radio, Tape Recorder, Video player, Television, charts, Display boards, flash cards, models, audio tapes, video cassettes and CDs etc.

Contextual issues for Learning Geography
a) Mapping,
b) Visit some place of Geographical interest,
c) Preparation on maps, charts and models for geography
d) Collection of newspaper cuttings related to Geographical issues
e) Geography and Environmental Studies.

## Unit V

Professional Development of Geography Teacher
a) Academic and Professional Qualities
b) Professional growth and professional ethics
c) In service training, seminar, workshop, symposia, bridge courses, panel discussion, conferencing, research projects etc. as ways of professional development
d) Role of Geography teacher
e) Hindrances in the professional development and remedies thereof.

## Research and Development in Geography Teaching and Learning:

a) Priority areas of research in Geography teaching;
b) recent developments through research in Geography teaching and learning especially in India;
c) Role of various organisations in researching in areas of Geography;
d) Current practices and future research trends in Geography teaching and learning.

## References:

1. Source Book for Teaching of Geography, UNESCO Publication
2. Singh L.R. Practical Geography, Allied Publication Allahabad.
3. Monk House F.J.: Maps and Diagrams
4. Verma J.P.: Bhugol Shikshan, Vinod Pustak Mandir, Agra
5. Sharma, C.R.: Buhgol Shikshan. Modern Publishers, Vinod Pustak Mandir, Agra.
6. H.N. Singh Bhugol Shikshan, Vinod Pustak Mandir,Agra.
7. Arora K.L.: Bhugol Shikshan, Praksh Bros.Ludhiyana.
8. Barnard, H.C.: Principles and Practice of Geography Teaching London University, Tutorial Press, 1953.
9. Kual A.K.: Why \& How of Geography Teaching Ambanu Publication, Sringar 1983.
10. Machee: Teaching of Geography, Oxford University Press, Bombay
11. Mishra, A.N.: Bhugol Shikshan Opandhati Shikshan Niketan Kanpur 1959.
12. Verma O.P.: and Vedanayagam E.G.: Geography Teaching Sterling Publishers, New Delhi 3rd Ed. 1987.
13. Simpson, C.A.: The Study of Local Geography, Methuen.
14. Gopsil, G.H.: The teaching of Geography Macmillan and Co. Ltd. London 1958.
15. Dhand, H. (2009). Techniques of Teaching. New Delhi: APH Publishing Corporation.
16. Duplass, J. A. (2009). Teaching elementary social studies. New Delhi: Atlantic Publishers.
17. Singh, Y. K. (2009). Teaching of history: Modern methods. New Delhi: APH Publishing Corporation.
18. Aggarwal (2008). Teaching of history (4th ed). UP: Vikas Publishing House Pvt Ltd.
19. Aggarwal (2008). Teaching of social studies: A Practical Approach. (4th ed.). UP: Vikas Publishing House Pvt Ltd.
20. Aggarwal. J. C. (2008). Principles, methods \& techniques of teaching. UP: Vikas Publishing House Pvt Ltd.
21. Chauhan, S. S. (2008). Innovations in teaching learning process. UP: Vikas Publishing House Pvt Ltd
22. Sharma, R. N. (2008). Principles and techniques of education. Delhi: Surjeet Publications.
23. Sharma, R. A. (2008). Technological foundation of education. Meerut: R. Lall Books Depot.
24. Aravind, G.(2005). Nationalism and social reform in a Colonial Situation. New Delhi: Gyan Books Pvt. Ltd.
25. Henry, K.S.(2005). Philosophy for a new civilisation. New Delhi: Gyan Books Pvt. Ltd.
26. Mangal, S. K., \& Mangal, S. (2005). Essentials of educational technology and management; .Meerut: loyal book depot.
27. Rekha,P. (2005). Movements in medieval India. New Delhi: Gyan Books Pvt. Ltd.
28. Joyce. \& Well. (2004). Models of teaching. U.K: Prentice hall of India.
29. Passi, B. K. (1976). Becoming a better teacher: Micro teaching approach. Ahmedabad: Sahitya Mudranalaya.
30. Gupta, B. L. (1992). Value and distribution system in ancient India. New Delhi: Gyan Books Pvt. Ltd.

## PEDAGOGY OF CIVICS AND ECONOMICS

## Course Objectives:

Upon completion of the course the student-teachers will -

1. Understand the modern concept of Civics and Economics.
2. Understand the aims and objectives of teaching Civics and Economics.
3. organise co-curricular activities in Civics and Economics
4. acquire knowledge on the current trends in Civics and Economics Curriculum
5. Prepare unit plan and lesson plan for different classes and use them effectively.
6. Critically evaluate the existing school syllabus and review the text book of Civics and Economics.
7. Apply appropriate methods and techniques of teaching of particular topic to different levels.
8. Prepare achievement test and diagnostic test, administration of the test, analysis of result and make suggestion for remedial teaching.

## Course Contents

## Unit I

## Nature, Scope and objectives

a) Changing concept of Civics and Economics
b) Its place and scope (importance)
c) Aims and objectives of Civics and Economics teaching at secondary level, its role in developing international understanding.
d) Correlation of Civics and Economics with other school subjects.

## Curriculum and Planning

a) Characteristics of a good Civics and Economics curriculum
b) Principles of curriculum construction
c) Critical Appraisal of Civics and Economics syllabus (TBSE).
d) Planning daily lesson plan and Unit plan - writing instructional and behavioural objectives and learning outcomes.

Unit II
Learning Civics and Economics
Perspectives of learning and teaching of Civics and Economics - Chorological concept and Chronological concept, acquisition of skills related to map, time scale etc. of historical thinking; Internal and External Criticism in learning History.

Unit III

## Methods and approaches

a) Narrative Method
b) Activity Method
c) Exploratory Method
d) Brain Storming
e) Group Discussion
f) Local and study tour.
g) Other Innovative practices - Programmed Learning, CAI.

## Evaluation

a) Tools and techniques of evaluation in Civics and Economics.
b) Achievement Test
c) Different types of questions.
d) Statistics and graphical representation in Civics and Economics.

Unit IV

## Instructional support system

a) Teaching aids
b) History room and Museum.
c) Resource material in teaching History.
d) Co-Curricular activities.
e) Films, Film strips, overhead projector, Radio, Tape Recorder, Video player, Television, charts, Display boards, audio tapes, video cassettes and CDs etc.

## Contextual issues for Learning Civics and Economics

a) Civics and Economics and Human Rights
b) Civian and Eamamise ond Nativirul li,tegration
c) Civics and Economics and Environmental Awareness
d) Civics and Economics and Political and Economic Development
e) Civics and Economics and current issues

Unit V
Research and Development in Civics and Economics Teaching and Learning:
a) Priority areas of research in Civics and Economics teaching;
b) Recent developments through research in Civics and Economics teaching and learning especially in India;
c) Role of various organisations in researching in areas of Civics and Economics;
d) Current practices and future research trends in Civics and Economics teaching and learning.

## Professional Development of Civics and Economics Teacher

a) Academic and Professional Qualities
b) Professional growth and professional ethics
c) In service training, seminar, workshop, symposia, bridge courses, panel discussion, conferencing, research projects etc. as ways of professional development
d) Role of Civics and Economics teacher
e) Hindrances in the professional development and remedies thereof

References:

| 1. Bining and Bining | :Teaching of Social Studies. |
| :--- | :--- |
| 2. Brantom,F.K. | :The teaching of Social Studies in changing World |
| 3. Dray and David jordon | : A Hand Book of Social Studies. |
| 4. Hamming,James | :The teaching of Social Studies in Secondary School. |
| 5. Wesley Edger Brose | :Social Studies for schools |
| 6. Taneja, V.R. | : Teaching of Social Studies in Hindi Edition |
| 7. Horn.E.E. | : Methods of instruction in the Social Studies. |
| 8. Kochhar,S.K. | : Teaching of Social Studies in Hindi Edition |
| 9. Bhuwneshwar Prasad Studies teaching in Indian Schools, |  |
| 10.Sharma.M.B. | : Mothnd of Social Soionoc teaching |
| 11. Jain Ameerchand | : Social Science teaching |
| 12. Ram Pal Singh | : Social Studies teaching. |

## PEDAGOGY OF HISTORY

Upon completion of the course the student-teachers will -

1. Understand the modern concept of History.
2. Understand the aims and objectives of teaching History.
3. organise co-curricular activities in History
4. acquire knowledge on the current trends in History Curriculum
5. Prepare unit plan and lesson plan for different classes and use them effectively.
6. Critically evaluate the existing school syllabuis and review the text book of History.
7. Apply appropriate methods and techniques of teaching of particular topic to different levels.
8. Prepare achievement test and diagnostic test, administration of the test, analysis of result and make suggestion for remedial teaching.

## Course Contents

Unit I
Nature, Scope and objectives
a) Changing concept of History
b) Its place and scope (importance)
c) Aims and objectives of History teaching at secondary level, its role in developing international understanding.
d) Correlation of History with other school subjects.

## Curriculum and Planning

a) Characteristics of a good History curriculum
b) Principles of curriculum construction
c) Critical Appraisal of History syllabus (TBSE).
d) Planning daily lcsson plan and Unit plan - writing instructional and behavioural objectives and learning outcomes.

## Unit II

## Learning History

Perspectives of learning and teaching of History - Chorological concept and Chronological concept, acquisition of skills related to map, time scale etc. of historical thinking; Internal and External Criticism in learning History.

Unit III
Methods and approaches
a) Narrative Method
b) Activity Method
c) Experimental Method
d) Brain Storming
e) Group Discussion
f) Local and study tour.
g) Other Innovative practices - Programmed Learning, Computer Assisted Instruction.

## Evaluation

a) Tools and techniques of evaluation in History.
b) Achievement Test
c) Different types of questions.
d) Content Analysis

Unit IV

## Instructional support system

i. Teaching aids
ii. History room and Museum
iii. Resource material in teaching History
iv. Co-Curricular activities.
v. Films, Film strips, overhead projector, Radio, Tape Recorder, Video player, Television, charts, Display boards, audio tapes, video cassettes and CDs etc.

## Contextual issues for Learning History

a. History and Human Rights
b. History and National Integration
c. History and Envirnnnmental A warareness
d. Historiography
e. Visit some places of historical interest,
f. Collection of newspaper cuttings related to historical issues

Unit V

## Professional Development of History Teacher

a. Academic and Professional Qualities
b. Professional growth and professional ethics
c. In service training, seminar, workshop, symposia, bridge courses, panel discussion, conferencing, research projects etc. as ways of professional development
d. Role of History teacher

## e. Hindrances in the professional development and remedies thereof.

## Research and Development in History Teaching and Learning:

e) Priority areas of research in History teaching;
f) Recent developments through research in History teaching and learning especially in India;
g) Role of various organisations in researching in areas of History;
h) Current practices and future research trends in History teaching and learning.

## References:

1. Source Book for Teaching of Geography, UNESCO Publication
2. Singh L.R. Practical Geography, Allied Publication Allahabad.
3. Monk House F.J.: Maps and Diagrams
4. Verma J.P.: Bhugol Shikshan, Vinod Pustak Mandir, Agra
5. Sharma, C.R.: Buhgol Shikshan. Modern Publishers, Vinod Pustak Mandir, Agra.
6. H.N. Singh Bhugol Shikshan, Vinod Pustak Mandir,Agra.
7. Arora K.L.: Bhugol Shikshan, Praksh Bros.Ludhiyana.
8. Barnard, H.C.: Principles and Practice of Geography Teaching London University, Tutorial Press, 1953.
9. Kual A.K.: Why \& How of Geography Teaching Ambanu Publication, Sringar 1983.
10. Machee: Teaching of Geography, Oxford University Press, Bombay
11. Mishra, A.N.: Bhugol Shikshan Opandhati Shikshan Niketan Kanpur 1959.
12. Verma O.P.: \& Vedanayagam E.G.: Geography Teaching Sterling Publishers, New Delhi 3rd Ed. 1987.
13. Simpson, C.A.: The Study of Local Geography, Methuen.
14. Gopsil, G.H.: The teaching of Geography Macmillan and Co. Ltd. London 1958.
15. Dhand, H. (2009). Techniques of Teaching. New Delhi: APH Publishing Corporation.
16. Duplass, J. A. (2009). Teaching elementary social studies. New Delhi: Atlantic Publishers.
17. Singh, Y. K. (2009). Teaching of history: Modern methods. New Delhi: APH Publishing Corporation.
18. Aggarwal (2008). Teaching of history (4th ed). UP: Vikas Publishing House Pvt Ltd.
19. Aggarwal (2008). Teaching of social studies: A Practical Approach. (4th ed.). UP: Vikas Publishing House.
20. Aggarwal. J. C. (2008). Principles, methods \& techniques of teaching. UP: Vikas Publishing House.
21. Chauhan, S. S. (2008). Innovations in teaching learning process. UP: Vikas Publishing House Pvt Ltd
22. Sharma, R. N. (2008). Principles and techniques of education. Delhi: Surjeet Publications.
23. Sharma, R. A. (2008). Technological foundation of education. Meerut: R. Lall Books Depot.
24. Aravind, G. (2005). Nationalism \& social reform in a Colonial Situation. New Delhi: Gyan Books.
25. Henry, K.S. (2005). Philosophy for a new civilisation. New Delhi: Gyan Books Pvt. Ltd.
26. Mangal, S. K., \& Mangal, S. (2005). Essentials of educational technology and management; Meerut: loyal book depot.
27. Rekha,P. (2005). Movements in medieval India. New Delhi: Gyan Books Pvt. Ltd.
28. Joyce. \& Well. (2004). Models of teaching. U.K: Prentice hall of India.

# PEDAGOGY OF PHYSICAL SCIENCE 

## Course Objectives:

Upon completion of the course the student-teachers will -

1. To acquaint the student teachers with the objectives of teaching physical science in secondary and higher secondary schools and help them to plan learning activities according to these objectives.
2. To give practice to the student teachers in the use of hard and software relating to technology of teaching.
3. To guide the student teachers in acquiring specific skills relating to the teaching of physical science, planning the lessons and presenting them effectively.
4. To know and apply various techniques/approaches of teaching the content of science.
5. To help the student teachers to understand the evaluation techniques and prepare objectives based items to assess the achievement and progress of pupils.
6. To apply the understanding in a teaching learning process in schools
7. \& enable the students to use audio-visual aids and information technology for effective teaching.
8. To guide the student teachers in maintaining the science laboratory effectively and the method of purchasing equipments and chemicals to the physical science laboratory.
9. To develop teaching and organizational skills in physical science.
10. To expose the impact of physical science in modern world.

## Course Contents

1.1 Nature and scope of science- Science as a product and a process- a body of knowledge, justification of including science as a subject of study in school curriculum Meaning and nature of physical science, thrust areas in physical science, Interdisciplinary approach.
1.2 Aims and objectives of teaching physical science- Differences between aims and objectives, Aims of teaching physical science, General and specific objectives of teaching physical science, correlation of physical science with other subjects, physical science and environment- values of physical science in relation to environment.

## Unit - 2 (Planning of a lesson for organizing teaching learning process in physical science)

2.1 Learning for exploring existing concepts, honing and clustering concepts, developing analysis and reasoning skill, learning for integration ,extension and generalization, developing unit plan, steps in unit planning, characteristics of a good unit plan.
2.2 Lesson planning, essential features of Lesson planning and their importance, steps in Lesson planning (NCTE lesson plan), preparing Lesson plans related to the contents of physical science in school curriculum.

Unit - 3 (Strategies for teaching and learning of different kinds of physical science contents and Assessment of learning in the subject)
3.1 Constructivist approach in learning at various levels of school education. Principles and techniques followed for teaching physical science, Scientific method: Lecture method, Demonstration method, project method, Laboratory method, Heuristic approach, Problem solving method, Question- answer method, programmed instruction, CAI and simulation.
3.2 Importance of assessment and evaluation in physical science, modes of assessment, test and its types-Achievement tests, blue print and question paper- item analysis,standardizing a test- diagnostic testing and remedial teaching, grading system, scoring procedure.

## Unit - 4 (Resources and contextual issues in learning physical science)

4.1 Text books, models, science journals, library - as a dynamic resource centre of knowledge- central and subject library, selection procedure of physical science books in library and their uses, physical science laboratory as a resources centre - organization and maintenance of science laboratory, improvisation of apparatus.
4.2 Co-curricular and non-formal approaches- scientific temper, development of scientific temper, modes of popularization and propagation of science in community, organization of science club, science exhibition and fairs, field trips and excursion, children science congress- seminar based on recent scientific issues and local problems.
4.3 Educational technology, classification and importance of audio visual aids, principles and uses of hardware: film strip cum slide projector, overhead projector, radio, TV, tape recorder, LCD. Principles and uses of software: objects, specimens, slides, CD, audio and video tapes. Educational Broadcasts: radio and TV lessons, power point, use of Internet in teaching physical science e- learning, importance of self-learning devices, principles and roles of computer in teaching physical science.

## Unit - 5 (Research in teaching-learning process and professional development of physical science teacher)

5.1 Priority areas of research in physical science teaching, recent developments through research in physical science teaching and learning especially in India, research related to
identification and nurturance of special talents in physical science, current practices and future research trends in physical science teaching and learning.
5.2 Academic and professional qualifications, special qualities and ethics of physical science teacher, in service training, usefulness of seminar, workshop, symposium, panel discussion in the professional development of physical science teacher, hindrances in the professional development and remedies thereof.

## References:

1. Kulshrestha, S.P.(2008), Teaching of Physical Sciences, Meerut: R. Lall.Book Depot.
2. Nayak, A.K.(2004), Teaching of Physics, New Delhi: APH Publishing Corporation.
3. Aggarwal, J.C.(2007), Essentials of educational Technology, Innovations in Teaching- Learning , New Delhi: Vikas Publishing House Pvt. Ltd.
4. Pal , Debasish \& Dhar, Debasish, (2006), Bhouta Bijnan Shikshan Padhati(in Bengali version), Kolkata: Rita Book Agency.
5. Mondal, Atul Krishna (1999), Bhouta Bijnan Shikshadan Prasanga (in Bengali version), Kolkata: Rita Book Agency.
6. Chauhan, S.S. (2000), Innovation in Teaching Learning Process, New Delhi: Vikas Publishing House Pvt. Ltd.
7. Gupta N.K. (1997), Research in Teaching of Science, New Delhi: APH Publishing Corporation.
8. Kaushik, V.K and Shjarma S.R. (1997), Modern Methods of Teaching, New Delhi: Anmol Publications Pvt. Ltd.
9. Kochar, S.K. (1997), Methods and Techniques of Teaching, New Delhi: Sterling Publishers Pvt. Ltd.
10. Kumar, A. (1999), Teaching of Physical Sciences, New Delhi: Anmol Publication Pvt. Ltd.
11. Mohanty, S. (1996), Teaching of Science in Secondary School, New Delhi: Deep and Deep Publications Pvt. Ltd.
12. Mukalel, J.C. (1998), Creative Approaches to Classroom Teaching, New Delhi: Discovery I uoustung nouse.
13. Sharma, R.C. (1981), Modern Science Teaching, Delhi: Dhanpat Rai and Sons

## PEDAGOGY OF MATHEMATICS

## Course Objectives:

Upon completion of the course the student-teachers will -
understand of the characteristics of Mathematical language and its role in Science
understand of the nature of axiomatic method and mathematical proof
know about aims and general objectives of teaching secondary school mathematics
state specific objectives in behavioural terms with reference to concepts and generalizations
teach different kinds of mathematical knowledge consistent with the logic of the subject
evaluate learning of concepts and generalization
7. identify difficulties in learning concepts and generalization and provide suitable remedial instruction
8. understand of mathematical proof in the context of secondary school mathematics
9. understand of nature, importance and strategies of problem-solving
10. teach proof of theorem and solution of problem to develop relevant skills
11. evaluate understanding of proof of a theorem and problem-solving skills.
12. understand the characteristics of and strategies for teaching exceptional children in mathematics
13. prepare and evaluate instructional materials in mathematics
14. appreciate the need for continuing education of mathematics teachers.

## Course Contents

## Unit 1: Foundations of Mathematics Education

## Nature of Mathematics

Meaning and dimensions of mathematics- the historical, scientific, language, artistic, rocroatinnal, activity and tonl; the naturo of mathomatical propocitions, mathomatical proof, structure and logic, axiomatic method, history of mathematics with special emphasis on Indian mathematics; Place of Mathematics in school curriculum.

## Nature of Learning Mathematics

Rationale, objectives, principles, designs and materials produced in the recent curricular reforms at the National and State levels and their critical appraisal; Need for Standards for school mathematics, Analysis of the aims and general objectives of teaching mathematics vis-à-vis the objectives of secondary education.

## Unit 2: Strategies for Teaching of Different Kinds of Mathematical Knowledge <br> Planning of a Lesson in Teaching Mathematics

Unit plan, preparation of unit plan, Lesson plan, its objectives, steps, complete format of a lesson plan with objectives and evaluation

## Strategies for Teaching various kinds of Mathematical Concepts

Methods of teaching; Deductive and Inductive, Analytic and Synthetic, Discovery, Problemsolving, teaching-learning process of topics of Mathematics.

## Unit 3: Teaching of Process in Mathematics

## Teaching for Understanding Proof

Developing an intuition about the nature of proof - to make the transition from concrete thinking to more formal reasoning and abstract thinking as they progress from class to class, kinds of proof - direct proof, mathematical induction, proof by contradiction, proof by cases, the contra positive, and disproof by counter example.

## Teaching Problem Solving in Mathematics

Definition of a problem, problem-solving and teaching problem-solving; importance of teaching problem solving, posing a problem, generating problem, modelling and model for problem-solving in algebra and geometry, Situation model for solving word problem, discovering or exploring various options for solving the problem i.e. developing heuristics, carrying out the plan and generating and extending a good problem,

## Unit 4: Assessment and Resources of and for Mathematics Learning

Assessment of and for Mathematics
Stating measurable objectives of teaching concepts, generalizations, problem solving and proof; construction of appropriate test items for assessing product and developmental (thinking skills) outcomes, Diagnosing basic causes for difficulties in learning concepts, generalizations, problem solving and proof; planning remedial teaching strategies based on the perceived causes, implementing and evaluating the strategies. Construction of unit tests: Design and blue print; item construction; marking scheme; question-wise analysis. Construction of a mathematics question paper including general instruction with nature of options and overall coverage, and marking scheme. Learning mathematics in groups-issues in practice, Characteristics of students of high ability and unsuccessful, Group work and cooperative or collaborative strategies, Provision in heterogeneous classrooms

## Learning Resources in Mathematics

Meaning, types, functions, preparation and utilization of learning resources in Mathematics: Textbook, Models, Calculators and Computers, Graphic calculators, Logo in learning algebraic language and spatial reasoning, Cabri geometry as a mediating and as a cognitive tool, Geometer's sketchpad, The Mathematics Laboratory - planning and organizing laboratory activities, Mathematics Outside the Classroom

## Research in Mathematics Teaching

Priority areas of research in Mathematics teaching, recent developments through research in Mathematics teaching and learning especially in India, research related to identification and nurturance of special talents in Mathematics, current practices and future research trends in Mathematics teaching and learning.

## Professional Development in Teaching Mathematics

Academic and professional qualifications, special qualities and ethics of Mathematics teacher, in service training, usefulness of seminar, workshop, symposium, panel discussion in the professional development of Mathematics teacher, hindrances in the professional development and remedies thereof.

## References:

1. Cooney, Thomas J. and Others (1975). Dynamics of Teaching Secondary School Mathematics, Boston: Houghton Mifflin.
2. Driscoll,M., Egan, M., Nikula, J., \& DiMatteo, R. W. (2007). Fostering geometric thinking: A guide for teachers, grades 6-10. Portsmouth, NH: Heinemann.
3. Driscoll,M.(1999). Fostering algebraic thinking: A guide for teachers, grades 5-10. Portsmouth, NH: Heinemann.
4. Grouws, D.A. (ed) (1992). Handbook of Research on Mathematics Teaching and Learning, NY: Macmillan Publishing.
5. Mager, Robert (1962) Preparing instructional objectives. Palo Alto, CA: Fearon.
6. Malone, J. and Taylor, P. (eds) (1993). Constructivist Interpretations of Teaching and Learning Mathematics, Perth: Curtin University of Technology.
7. Marshall, S.P. (1995) Schemes in Problem-solving. NY: Cambridge University Press.
8. Moon, B. \& Mayes, A.S. (eds) (1995). Teaching and Learning in Secondary School. London: Routledge.
9. NCERT, A Textbook of Content-cum-Methodologv of Teaching Mathematics. New Delhi: NCERT.
10. Nickson, Marilyn (2000). Teaching and Learning Mathematics: A Guide to Recent Research and its Applications, NY: Continuum.
11. Nunes, $T$ and Bryant, $P$ (Eds) (1997). Learning and Teaching Mathematics: An International Perspective, Psychology Press.
12. Lester, F.K (Ed) (2007). Second Handbook of Research on Mathematics Teaching and Learning, Charlotte, NC: NCTM \& Information Age Publishing.
13. Polya, George (1957) How to solve it, Princeton, NJ: Princeton University Press.
14. NCERT and State textbooks in Mathematics for Class VIII to $X$

## PEDAGOGY OF LIFE SCIENCE

## Course Objectives:

Upon completion of the course the student-teachers will -
11. To acquaint the student teachers with the objectives of teaching life science in secondary and higher secondary schools and help them to plan learning activities according to these objectives.
12. To give practice to the student teachers in the use of hard and software relating to technology of teaching.
13. To guide the student teachers in acquiring specific skills relating to the teaching of life science, planning the lessons and presenting them effectively.
14. To know and apply various techniques/approaches of teaching the content of life science.
15. To help the student teachers to understand the evaluation techniques and prepare objectives based items to assess the achievement and progress of pupils.
16. To apply the understanding in a teaching learning process in schools and enable the students to use audio-visual aids and information technology for effective teaching.
17. To guide the student teachers in maintaining the science laboratory effectively and the method of purchasing equipments to the life science laboratory.
18. To develop teaching and organizational skills in life science.
19. To expose the impact of life science in modern world.

## Course Contents

## UNIT - 1

## Nature of Life Science:

Meaning, scope and dimensions of Life Science; aims and objectives of teaching $v$; relation of Life Science with other school subjects; justification of placing Life Science as a compulsory subject in Secondary school curriculum.

## Learning of Life Science:

Psychology of learning and teaching of Life Science; Cognitive, Affective and Psychomotor Domains of learning Life Science; meaning and scope of the concepts "Scientific Temper" \& "Science Technology Literacy" in relation to Life Science; popularisation and propagation of Life Science (science fair, science club, field trip and specimen collection, science magazines, science quiz, science museum and zoo)

## UNIT - 2

## Organising Learning in Life Science:

Principles of curriculum construction in Life Science; new integrated science curriculum of NCERT; Secondary level Life Science curriculum of Tripura; Rationale and design of curricular reforms in Life Science.

## Planning of Lessons:

Planning lessons - development of teaching-learning skills by dividing lessons into lesson units and preparation of lesson notes.

UNIT - 3

## Strategies for teaching and learning Life Science:

Methods of teaching Life Science - lecture, demonstration, heuristic or discovery, project, programmed instruction, CAI etc.

## Assessment of learning in Life Science

Evaluation of theoretical knowledge and practical work in Life Science; construction of unit tests; design and blue-print; construction of appropriate test items,

UNIT - 4

## Learning resources in Life Science

Meaning, types, preparation and utilization of learning resources in Life Science: text book, models, computer and projector, charts, pictures, aquarium, live and preserved specimens; Life Science laboratory - planning and organisation.

## Contextual issues in learning Life Science

Environmental issues - pollution in air, water, soil, sound (noise); Global Warming and Greenhouse Effect; population dynamics and global crisis; basics of HIV and AIDS and adolescent education,

## UNIT - 5

## Research in Life Science Teaching

Priority areas of research in Life Science teaching, recent developments through research in Life Science teaching and learning especially in India, research related to identification and nurturance of special talents in Life Science, current practices and future research trends in Life Science teaching and learning.

## Professional Development in Teaching Life Science

Academic and professional qualifications, special qualities and ethics of Life Science teacher, in service training, usefulness of seminar, workshop, symposium, panel discussion in the
professional development of Life Science teacher, hindrances in the professional development and remedies thereof.

## References:

1. Sood,J.K. 1987 Teaching Life Sciences, Kobli Publishers, Chandigarh
2. Sharma, L.M. 1977 Teaching of Science \& Life Science Dhanpat Rai \& Sons, Delhi.
3. Kulsherstha, S.P. 1988 Teaching of Biology, Loyal Book Depot, Meerut.
4. Yadav, K. 1993 Teaching of life sciences, Anmol publishers, Daruagaj,Delhi
5. Vadav, M.S. 2000 Modern methods of teaching sciences Anmol Publisher, Delhi.
6. $\begin{aligned} & \text { Singh, U.K. \& Nayab, } \\ & \text { A.K. }\end{aligned}{ }^{2003} \begin{aligned} & \text { Science Education common wealth Publishers Daryaganj, New } \\ & \text { Delhi }\end{aligned}$
7. Venkataih, S. 2001 Science Education in 21st century Anmol Publishers, Delhi.
8. Yadav, M.S. (Ed) 2000 Teaching science at High level Anmol Publishers, Delhi
9. 

Edger, Marlow \& Rao, $2003 \begin{aligned} & \text { Teaching science successfully, Discovery publishing House, New } \\ & \text { D.B. }\end{aligned}$
Delhi
10. Mangal, S.K. 1996 Teaching of science, Alya Book depot, New Delhi
11. Dave, R.H.

1969 Taxonomy of educational objectives \& Achievement, testing London University Press London.
15. Nuvư, viss:


## PEDAGOGY OF ENGLISH

## Course Objectives:

Upon completion of the course the student-teachers will -

1. Develop a good understanding of the basic concepts in second language teaching
2. Teach basic language skills as listening speaking reading and writing and integrate them for communicative purpose.
3. Critically review and use appropriately different approaches and methods of teaching English as second language
4. Prepare lesson plans on different and prescribed aspects of English as second language.
5. Choose, prepare and use appropriate audio visual teaching aids for effective teaching of English
6. Use various techniques of testing English as second language and develop remedial and conduct teaching.

## Course Content

## Unit 1: Foundations of English Education

## Nature of English

Meaning of English; the nature of phonetics in English, objectives of studying English as both first and second language, history of English with special emphasis on Indian English; place of English in present days, the value of attaining a working knowledge of English, English as a library language, a link language, a language for communication in a Globalize Economy, a world language to foster international brotherhood.

## Learning of English

Perspectives on the psychology of learning and teaching of English - cognitivism, constructivism and a Vygotskyan perspective, acquisition of skills of linguistic thinking, learning pronunciation, phrasing and intonation and their implications for teaching

## Curriculum Reforms in School English practices

Rationale, objectives, principles, designs and materials produced in the recent curricular reforms at the National and State levels and their critical appraisal; Need for Standards for school English language practices.

## Unit 2: Planning and Strategies for Teaching and Learning English

## A. PLANNING FOR ORGANISING LEARNING IN ENGLISH:

Learning of English Pronunciation; learning of reading, types of English reading; learning of writing; learning of spelling; learning of vocabulary.

## B. STRATEGIES FOR TEACHING LISTENING AND SPEAKING:

## (B.1) Teaching of Listening

Concept of listening in second language; The phonetic elements involved in listening at the receptive level.(Monothongs, diphthongs, consonants, pause, juncture, stress, accent beat, intonation, rhythm); Listening skills and their sub-skills; Techniques of teaching listening; Role of teaching aids in teaching listening skills; Note taking.

## (B.2) Teaching of Speaking

Concept of speaking in second language; The phonetic elements involved in listening at the receptive level (Monothongs, diphthongs, consonants, pause, juncture stress, accent, beat, intonation, rhythm); The Stress System-Weak Forms and scheme; Techniques of teaching speaking skills and pronunciation, Pronunciation practice and drills, Dialogues and Conversation; Role of A.V. aids in teaching speaking skills

## Unit 3: Teaching of Process in English

## Planning of a lesson for teaching-learning process:

What is lesson plan? Why lesson plan? Pre-requisites for effective lesson planning. Preparation of lesson plans on prose, poetry, composition and grammar.

## Contextual Issues in Learning the subject matter content:

An introduction to English Pronunciation - The speech organs, English sound system, sounds of English and phonetic symbols, vowel sounds and consonant sounds, stress, rhythm, intonation, fluency, pause.

Unit 4: Assessment of and for English Learning and Learning Resources

## Testing and Evaluation

Stating measurable objectives of teaching prose, poetry, grammar \& composition; Concept of testing \& evaluation in English as a second language, testing language skills; Type of test; Preparation of unit \& examination paper - their blue print \& answer key; Types \& preparation of test-items; Error analysis; Concept \& need of remedial teaching \& remedial work.

## Learning Resources in English

Meaning, types, functions, preparation and utilization of learning resources in English: Textbook, Models, Computers, The Language Laboratory, The Blackboard and the White Board, Blackboard drawings and sketches, The Overhead Project (OHP), Songs, Video clips,

Pictures, Photos, Postcards, and Advertisements, Newspapers, Magazines and Brochures, Radio, Tape-recorder, T.V., Stories and anecdotes; English outside the Classroom.

## Unit 5: Research in English Teaching and Learning and Professional Development of the English Teacher

## Research and Development in English Teaching and Learning:

Priority areas of research in English language teaching; recent developments through research in English teaching and learning especially in India; Current practices and future research trends in English teaching and learning.

Professional Development of the English Teacher:
Professional development and professional ethics of English teacher; essential qualities of English teacher; Usefulness of seminar, workshop, symposia, bridge courses, panel discussion, conferencing, research projects, other linguistic performances etc. in the professional development of the English teacher; hindrances in the professional development and remedies thereof.

## References:

1. Bansal, R.K. and Harrison, J.B. (1972): Spoken English for Indian, Madras: Orient Longman.
2. Baruag, T.C. (1985): The English Teacher's Handbook, New Delhi Sterling publishing Pvt. Ltd.
3. Bright and McGregor: Teaching English as Second Language, Longman
4. Brumfit, C.J. (1984): Communicative Methodology in Language Teaching Cambridge: C.U.P.
5. Collins Cobuild English Grammar (2000) Harper Collins Publisher India
6. Doff, A (1988) Teach English: Cambridge: CUP
7. Freeman Diane-Larsen (2000): Techniques and Principles in Language Teaching Oxford: CUP
8. Cimsan A.C. (INQ()): An Intwaduation to tho Dromunoiation of English London: Edward Arnold.
9. Hornby, A.S. (1968): A Guide to Patterns and Usage in English Oxford: OUP
10. Lado, Robert (1971): Language Teaching, New Delhi: Tata McGraw Hill.
11. Leech Geoffrey \& Svartvil, Jan (2000) Communicative Grammar of English Cambridge C.U.P.
12. Paliwal, A.K., (1988): English Language Teaching, Jaipur: Surbhi Publication
13. Palmer, H.L. (1964-65) The Principles of Language Study, London: O.U.P.
14. Quirk, Randolph and Greenbaum, (1973): A University Grammar of English London
15. Richards, J.C. \& Rodgers, T. S. Approaches and Methods in Language Teaching Cambridge C.U.P.
16. Roach, Peter, (1991): English Phonetics and Phonology, Cambridge, C.U.P.
17. Thomson A.J. and Martiner (1998) A Practical Grammar, ELBS, O.U.P.
18. Ur P. 1996, A course in Language Teaching Cambridge CUP
19. Venkateshwaran, S (1995) Principles of Teaching English: Vikas Publishing, Delhi.
20. Willis, Jane: Teaching English through English, O.U.P.
21. Woodward, Tessa (2001) Planning Lessons and Courses. Cambridge; CUP.

## বাংলা শিক্ষণবিদ্যা

## উদ্দেশ্J:

শিক্ষক-শিক্ষাथीরা আলোচ্য বিষয় পাঠের ক্ষেত্রে -
ক) আআাপ্রকালের সর্বোংকৃষ্ট মাধ্যম যে ভাষা, তা আয়াত্ত কন্রবে।
খ) সৃজনী প্রতিভার বিকাশ সাধন কররে।
গ) স্বধীন চিত্তা ও বিচারশক্তির সাহাযেে পাঠদান প্রক্রিয়াকে আকর্ষণীয় কর্রার দক্ষতা তৈরী করবে।
ঘ) বিদ্যালয়ে শিক্মাদান কৌশল আয়তত্ত কর্রবে।
"৫) ভাবার প্রয়োগ দক্ষতা বাড়াবে।
চ) ভাষাগত পরিবর্তন আয়ত্ত কন্নবে।
ছ) পেশাগত দক্ষতা বাড়াবে এবং এই বিষয়ে সীমাবদ্ধতা সম্পরেে সচেতন হবে।
জ) শিক্ষাীীর প্রয়োজনীয়তা জেনে দ্রুত সিদ্ধান্ত গ্রহণের ক্ষমতা অর্জন করবে।

## বিষয় সূচী

## একক s:

১। বাংলা ভাষার সংজ্ঞা; বাংলা ভাষা শিক্ষাদানের উপযোগিতা; শিক্মার মাধ্যমর্পে বাংলা ভাষার গুরুত্ব; প্রথম ও দ্বিতীয় ভাষাজূপে বাংলা ভাযা শিক্ষাদানের উদ্দেশ্য ও প্যোজনীয়তা; বাংলা বিষয়ের সক্গে অन্যান্য পাঠযবিষয়ের অনুব্ধন; বাংলা ভাयা পাঠদানের নীতি ও পদ্ধতিসমূহ।

২। বাংলা ভাষা শিখনে ও শিক্ষাদান্ন মনোবৈষ্ঞানিক প্রেক্ষাপট - পজ্ঞাবাদ (Cognitivism), निর্মিতিবাদ (Constructivism) ও ভাইগটৃস্কির মতবাদের প্রসক্গ অবতারণা; ভাষাগত চিত্তনে দক্ষতা অর্জন; উচ্চারণ শেখা; সঠিক শ্ববণ, কथন, পঠন ও লিখনের ধরণ শেখা; শব্দভাভার মৌলিক ও আগন্তুক শব্দের র্রপরেথো; সাখু রীতি ও চলিত রীতির ধারা।

## একক ২:

>। সাহিত্যানুীীলন কার্যাবলীর প্রয়োজনীয়তা; বিদ্যালয়ে কার্यাবলী পরিচালনা; ছবি দেখে গन্প বলা, মাগাজিন প্্স্টুতি, দেওয়াল পত্রিকা, সাহিত্যসভা, বিতর্ক, শিক্ষমমললক ভ্রমণের বর্ণনা, ভাযা গরেষণাগার (Language Laboratory), গ্রন্থাগার ইত্যাদি।

২। পাঠীীীা প্রস্ডুতির বিস্থৃত আলোচনা - একক পাঠটীকা ও পূর্ণা|্ পাঠটীকা; সাধারণ উদ্দেশ্য ও আচরণগত উদ্দেশ্য নির্রপণ; পাঠটীীকায় বিভিন্ন পর্যায় সমূহের অন্তর্ভুক্তিকরণের যৌক্তিকতা।

## একক ৩:

১। গদ্য পাঠদানের উদ্দেশ্য ও কৌশল; পদ্য পাঠদানেন উদ্দেশ্য ও রসাতাক কৌশল; সরব পাঠ ও নীরব পাঠের গুরুত্ণ ও সীমাবদ্ধতা; অনুবাদ ও রচনা শিক্মাদান কৌশল।

২। মूল্যায়ন ও পরীক্শা - মूল্যায়নেে বিভিন্ন পদ্ধতি; নৈর্বক্তিক অভীক্ষার ধারা; নিরবচ্ছিন্ন ও সার্বিক


একক 8:
১। মান্য চলিত বাংলা ভাযা, উপভাযা উচ্চারণের ত্রুটি; বানান সমস্যা ও তার সমাখান; সঠিক স্বরক্লেপণ এবং ছেদ ও যতি চিহ্নের বিন্যাস।

২। শিক্কক সহায়ক উপকর্নণ বা প্রদীপনের ব্যবহার - দৃষ্টি নির্ভর উপকরণ, শ্রুতি নির্ভর উপকন্নণ, এবং দৃষ্টি ও শ্রুতি নির্ভর উপকরণ৷

একক ৫:
১। বাংলা ভাयা শিখনে প্রাসগিক বিষয় সমূহ -
ক] স্থানীয়ভাবে সহজলভ্য উপকর্木ণ ও স্বম্প খরচচায় শিক্ষা সহায়ক উপকরণের প্রস্তুতি
খা গদ্য ও পদ্য পড়ানোর হাড্ববুক তৈরী করা (বিষয় ভিত্তিক, যেমন - প্রকৃতি
বিষয়ক, দেশপ্রেম বিষয়ক, আঞ্চলিক ভাষা বিষয়ক ইত্যাদি)

ঘ] প্রবাদ-প্ববচন পাঠ ও অनুশীলন
ঙ] গাজনের গান, খামাইল গানের আলবাম, অডিও ও ভিডিও ক্যাসেট তৈরী, ইত্যাদি
২। আদর্শ বাংলা শিক্ষকের গুণ বা লক্ষণ; বাংলা পাঠদান্ন শিক্ষকের সাধারণ দক্ষত; বাংলা বিষয়ে পেশাগত দক্শতার বিকাশে সেমিনার, কর্মশালা, ভাষাগত গবেষণা ইত্যাদির্ন উপযোগিতা।

গ্রন্পপজ্জ:
(১) বাহলা পড়ান্নোর রীতি ও পদ্ধতি - সত্যগোপাল মিশ্র
(২) বাংলা ভাযা ও সাহিত্য শিক্ষণ পদ্ধতিন র্রপরেেো - অলোক গপ্ত

## উদ্দেশ্য:

শিক্ষক-শিক্ষ|থীরা আলোচ্য বিষয় পাঠের ক্ষেত্রে -
ক) আতপ্রকাশের সর্বোৎকৃষ্ট মাধ্যম যে ভাষা, তা আয়ত্ত করবে।
খ) সৃজনী প্রতিভার বিকাশ সাধন করবে।
গ) স্বাধীন চিন্তা ও বিচারশক্তির সাহায্যে পাঠদান প্রক্রিয়াকে আকর্ষনীয় করার দক্ষতা তৈরী করবে।
ঘ) বিদ্যালয়ে শিক্ষাদান কৌশল আয়ত্ত করবে।
‘৫) ভাষার প্রয়োগ দক্ষতা বাড়াবে।
চ) ভাষাগত পরিবর্তন আয়ত্ত করবে।
ছ) পেশাগত দক্ষতা বাড়াবে এবং এই বিষয়ে সীমাবদ্ধতা সম্পর্কে সচেতন হবে।
জ) শিক্ষাথীর প্রয়োজনীয়তা জেনে দ্রুত সিদ্ধান্ত গ্রহণের ক্ষমতা অর্জন করবে।

## বिষয় সूচী

একক ১:
১। সংস্কৃত ভাষার সংজ্ঞা; সংস্কৃত ভাষা শিক্ষাদানের উপযোগিতা; শিক্ষার মাধ্যমরূপে সংস্কৃত ভাষার গুরুত্ব; সংস্কৃত ভাষা শিশ্ষাদানের উদ্দেশ্য ও প্রয়োজনীয়তা; সংস্কৃত বিষয়ের সহ্গে অন্যান্য পাঠ্যবিষয়ের অনুবন্ধন; সংস্কৃত ভাষা পাঠদানের নীতি ও পদ্ধতিসমূহ।
২। সংস্কৃত ভাষা শিখনে ও শিক্ষাদানে মনোবৈজ্ঞানিক প্বেক্ষাপট - প্রজ্ঞাবাদ (Cognitivism), নির্মিতিবাদ (Constructivism) ও ভাইগটস্কির মতবাদের প্রসন্গ অবতারণা; ভাষাগত চিত্তনে
 খ্বিনিভিজ্ঞান ও ব্যাকরণ পাঠের গুরুত্ব ও প্পয়োজনীয়তা।

## একক ২:

১। সাহিত্যানুশীলন কার্যাবলীর প্রয়োজনীয়তা; বিদ্যালয়ে কার্यাবলী পরিচালনা; ছবি দেথে গন্প বলা, ম্যাগাজিন প্রস্তুতি, দেওয়াল পত্রিকা, সাহিত্যসভা, বিতক্ক, শিক্ষমমূলক ভ্রমণের বর্ণনা, ভাষা গবেষণাগার (Language Laboratory), গ্রন্থাগার ইত্যাদি।

২। পাঠটীকা প্রস্তুতির বিস্তৃত আলোচনা - একক পাঠটীকা ও পূর্ণাঙ্গ পাঠটীীকা; সাখারণ উদ্দেশ্য ও আচরণগত উদ্দেশ্য নির্দপণ; পাঠটীকায় বিভিন্ন পর্যায় সমূহের অন্তর্ভুক্তিকরণের যৌক্তিকতা।

১। গদ্য পাঠদানের উদ্দেশ্য ও কৌশল; পদ্য পাঠদানের উদ্দেশ্য ও রসাতাক কৌশল; সরব পাঠ ও নীরব পাঠের গুরুত্ব ও সীমাবদ্ধতা; অনুবাদ ও রচনা শিক্ষাদান কৌশল।

২। মূল্যায়ন ও পরীক্মা - মূল্যায়নের বিভিন্ন পদ্ধতি; নৈর্ব্যক্তিক অভীক্ষার ধারা; নিরবচ্ছিন্ন ও সার্বিক মূল্যায়ন; নীল নক্শা (Blue-print) প্রস্তুতকরণ।

## একক ৪:

১। সংস্কৃত ভাষায় আবৃত্তি, চিত্র-সন্দর্শন রচনা, স্বচ্ছন্দ রচনা এবং উপপাঠ্য বা দ্রুত পঠনের স্থান; কথ্য উপভাষা ব্যবহারে সংস্কৃত উচ্চারণের ত্রুটি; বানান সমস্যা ও তার সমাধান; সঠিক স্বরক্মেপণ এবং ছেদ ও যতি চিহেের বিন্যাস।

২। শিক্ষক সহায়ক উপকরণ বা প্রদীপনের ব্যবহার - দৃষ্টি নির্ভর উপকরণ, শ্রুতি নির্ভর উপকরণ, এবং দৃষ্টি ও শ্রুতি নির্ভর উপকরণ।

## একক ৫:

১। সংস্কৃত ভাষা শিখনে প্রাসগিক বিষয় সমূহ -
ক] স্থানীয়ভাবে সহজলভ্য উপকরণ ও স্বন্প খরচায় শিক্ষা সহায়ক উপকরণের প্রস্তুতি খ] গদ্য ও পদ্য পড়ানোর হ্যান্ডবুক তৈরী করা (বিষয় ভিত্তিক, যেমন - প্রকৃতি বিষয়ক, দেশপ্রেম বিষয়ক ইত্যাদি)
গ] প্রসিদ্ধ কবিতা, শ্লোক, পাঠ ও অনুশীলন ঘ] প্রবাদ-প্রবচন পাঠ ও অনুশীলন

২। আদর্শ সংস্কৃত শিক্ষকের গুণ বা লক্ষণ; সংস্কৃত পাঠদানে শিক্ষকের সাধারণ দক্ষতত; সংস্কৃত বিষয়ে পেশাগত দক্ষতার বিকাশে সেমিনার, কর্মশালা, ভাষাগত গবেষণা ইত্যাদির উপযোগিতা।

## গ্রন্থপঞ্জী:

(১) সংস্কৃত শিক্ষণের র্দপরেখা - সুন্দরগোপাল সাহিত্যরত্দ
(২) সংস্কৃত সাহিত্যের ইতিহাস - জাহ্বীচরণ ভোমিক ও গোবিন্দগোপাল মুখোপাধ্যায়

## PEDAGOGY OF ACCOUNTANCY

## Course Objectives:

Upon completion of the course the student-teachers will -

1. Acquire the basic understanding of teaching of Accountancy
2. Develop the ability to plan curriculum and instruction in Accountancy at School level.
3. Develop the ability to critically evaluate the existing school curriculum of Accountancy
4. Impart knowledge of the methods and devices of teaching Accountancy to develop the skill of using the same.
5. Apply appropriate methods in teaching particular topics for Accountancy.
6. Prepare achievement and diagnostic test.
7. Develop necessary skills in preparation of using various teaching aids.

## Course Content

## Unit 1:

a) Nature of Accountancy: definition, nature and scope of study; difference between accounts and accountancy.
b) Nature of learning Accountancy: aims and objectives; vocational objectives, personal objectives, and general objectives.

## Unit 2:

a) Planning for organising learning of Accountancy - as a new subject of class XI for first few days plan.
b) Planning a ıessun ior waunor ..........................ana taaching simulated teachinga teaching skills, preparing a lesson plan; various steps for planning lesson; need for practical training thereon.

## Unit 3:

a) Strategies for teaching of various kinds of Accountancy based knowledge: Golden Rules, Double Entry System, Cash Book, Journal Proper Depreciation - concept formation and assimilation.
b) Assessment of learning Accountancy: construction of Unit test, design, blue print, formative and summative evaluation, Achievement test, continuous and comprehensive evaluation system.
a) Learning resources and their organisation: Accountancy text book, Teaching aids related to Accountancy, Accountancy subject room and Accountancy library - their need, importance and selection
b) Contextual issues in learning Accountancy: Journal approach, Ledger approach, Balance sheet approach, Cash book approach and Single entry system approach

## Unit 5 :

a) Research and development in teaching and learning Accountancy: Priority areas of research in Accountancy teaching; recent developments through research in Accountancy teaching and learning especially in India; Role of different agencies and organisations in researching in areas of Accountancy; Current practices and future research trends in Accountancy teaching and learning.
b) Professional development of Accountancy teacher: Essential qualities of Accountancy teacher as a scholarship; professional training, personality development, teaching skills, human relations, and classroom management.

## References

1. Verma A Musselma and J. Marshall Hannia: Teaching Book-keeping and Accountancy, Gregg Pub. Div., McGraw Hill Book Co., Inc. New York.
2. Williams: Principles of Teaching applied in Book-keeping \& Accounts Sir Isaac Pitman. London
3. Selby: The teaching of Book-keeping
4. Tonne, Pohem \& Freeman: Method of teaching Business Subject Gregg Pub. Dir., Mc Graw Hill, Inc., NY.
5. Harvey: Ways to teach Book-keeping and Accounting
6. Boynton Lewis D: Methods of teaching Book-keeping, South Western publication Co. Cincinnati, Ohio.

7 Aogmunal I C. TAnnling af an.............
8. Gupta and Gupta: Intermediate Book-keeping \& Accounts, Agra Book store, Agra
9. J.N.Vaish: Book-keeping and Accounts, Part I and II (Hindi and /English version).
10. Parikh, Dr. A.K.M.: Lesson planning in Indian schools, Subha sanchar, Ajmer

## PEDAGOGY OF BUSINESS ORGANISATION

## Course Objectives:

Upon completion of the course the student-teachers will -

1. Acquire the basic understanding of teaching of Business Organisation
2. Develop the ability to plan curriculum and instruction in Business Organisation at School level.
3. Develop the ability to critically evaluate the existing school curriculum of Business Organisation
4. Impart knowledge of the methods and devices of teaching Business Organisation to develop the skill of using the same.
5. Apply appropriate methods in teaching particular topics for Business Organisation.
6. Prepare achievement and diagnostic test.
7. Develop necessary skills in preparation of using various teaching aids.

## Course Content

## Unit 1:

a) Nature of Business Organisation: definition, nature, Commerce Education, Business Administration; History of Business Organisation.
b) Nature of learning Business Organisation: need of Business Organisation as a subject in school curriculum; instructional objectives of Business Organisation; teaching objectives of Business Organisation.

## Unit 2:

 learning of Business Organisation; correlation of Business Organisation with other allied subjects.
b) Planning a lesson for teacher training process: micro teaching, simulated teaching, teaching skills, preparing a lesson plan; various steps for planning lesson; need for practical training thereon.

## Unit 3:

a) Strategies for teaching of various kinds of Business Organisation based knowledge: Foreign Trade, Retail Trade, Wholesale Trade, Warehousing, and Multiple Shop their concepts, definitions, features, merits and demerits.
b) Assessment of learning Business Organisation: construction of Unit test, design, blue print, formative and summative evaluation, Achievement test, continuous and comprehensive evaluation system.

## Unit 4:

a) Learning resources and their organisation: Business Organisation text book, Teaching aids related to Business Organisation, Business Organisation subject room and Business Organisation library - their need, importance and selection
b) Contextual issues in learning Business Organisation: Capital Turnover, Management Nature, significance, basic functions and principles.

## Unit 5:

a) Research and development in teaching and learning Business Organisation: Priority areas of research in Accountancy teaching; recent developments through research in Business Organisation teaching and learning especially in India; Role of different agencies and organisations in researching in areas of Business Organisation; Current practices and future research trends in Business Organisation teaching and learning.
b) Professional development of Business Organisation teacher: Essential qualities of Business Organisation teacher as a scholarship; professional training, personality development, teaching skills, human relations, and classroom management.

## References:

Rao, Seema: Teaching of Commerce, Anmol publication Pvt. Ltd., 1995.
Jain K. C. S: Vanyjava Shikhan (Hindi) General Academy, Jaipur, 1986.
 by the Garden Press Ltd., Letehworth, Hert Fordshire, 1970.
Neeb, W. B.: Modern Business Practice, The Ryerson Press, Toronto, 1965.
Khan, M. S.: The Teaching of Commerce, Sterling publishers (P) Ltd., Jullunder-3.
Singh, I. B.: Vanijaya Ka Adhyayan,Laxmi Narayan Agarwal, Agra, 1968.
Bhorali Devadas: Commerce Education in India. D.K. Publishers Distributors (P) Ltd., New Delhi, 1988.
Rai, B. C.: Method or Teaching Commerce, Prakashan Kendra, Lucknow, 1986.

