

SCHOOL OF DISTANCE EDUCATION BHARATHIAR UNIVERSITY

B.A EDUCATION

REGULATIONS AND SYLLABUS (EFFECTIVE FROM ACADEMIC YEAR 2007 ONWARDS)

1. ELIGIBILITY FOR ADMISSION TO THE COURSE

Candidate for admission to the first year of the UG degree course shall be required to have passed the higher secondary examination (Academic or Vocational) conducted by the Govt. of Tamil Nadu in the relevant subjects or other examinations accepted as equivalent thereto by the Syndicate, subject to such other conditions as may be prescribed therefore.

2. COURSE OF STUDY

The course of study for the U.G courses of B.A degree in Education shall consist of the following:

A) Part I

Any one of the Languages offered by the School of Distance Education.
Paper I in the end of the first year
Paper II in the end of the second year

B) Part II

English - The English subject shall be offered as Paper I and Paper II at end of the first and second year respectively.

D) Part III

Group A: 11 Papers
Examination will be conducted in the core subject at the end of every year.

Group B: The candidate admitted to B.A degree examination should undergo internship training under a teacher from a recognized elementary / middle / secondary school, where they have to prepare a lesson plan and teach the same for 20 days on application oriented papers.

3. SCHEME OF EXAMINATIONS

FIRST YEAR

Part	Subject and Paper	University Examinations	
		Duration in Hrs	Max Marks
I	Language Paper 1: _____	3	100
II	English Paper 1	3	100
III	Group A		
	Paper 1: Principles of Education	3	100
	Paper 2: Educational Psychology	3	100
	Paper 3: Sociology of Education	3	100

SECOND YEAR

Part	Subject and Paper	University Examinations	
		Duration in Hrs	Max Marks
I	Language Paper 2: _____	3	100
II	English Paper 2	3	100
III	Group A		
	Paper 4: Fundamentals of Teaching	3	100
	Paper 5: Teaching Learning Process	3	100
	Paper 6: Guidance and Counseling	3	100

THIRD YEAR

Part	Subject and Paper	University Examinations	
		Duration in Hrs	Max Marks
III	Group A		
	Paper 7: Educational Evaluation	3	100
	Paper 8: Methodology of Teaching Languages	3	100
	Paper 9: Methodology of Teaching Mathematics	3	100
	Paper 10: Methodology of Teaching Science	3	100
	Paper 11: Methodology of Teaching Social Science	3	100
	Group B: Internship Training*	Commended/Not Commended	

* The candidate admitted to B.A degree examination should undergo an internship training under a Teacher from a recognized elementary / middle / secondary school, where they have to prepare a lesson plan and teach the same for 20 days on application oriented papers and to this effect the candidate should produce a

certificate from a school teacher countersigned by the Head Master / Principal of that school. Their performance during the internship training should be declared as Commended / Not Commended by the supervising teacher.

4. SYLLABUS

The syllabus for various subjects shall be clearly demarcated into five viable units in each paper / subject.

5. DURATION OF THE COURSE

The course shall extend over a period of three years. There shall be a prescribed instructional days for each year. Examinations shall be conducted at the end of every year for the respective subjects.

6. RESTRICTION TO APPEAR FOR THE EXAMINATIONS

- (i) Any candidate having arrear paper(s) shall have the option to appear in any arrear paper along with the papers of his/her regular study in any year.
- (ii) Candidates who fail in parts I & II of UG degree examinations shall complete the paper concerned within four consecutive attempts inclusive of the first examination conducted in the concerned paper for that batch of candidates, and should they fail to do so, they shall take the examination in the current texts prescribed.

7. MEDIUM OF INSTRUCTION AND EXAMINATIONS

The medium of instruction and examination for the papers of part I and II shall be the language concerned. For part III subjects the medium of instruction shall be in English. The medium of examination is English / Tamil.

8. PASSING MINIMUM

- a) A candidate shall be declared to have passed in a paper theory or practical, if he/she obtains not less than 40 per cent of marks in that paper / practical examination. He/she shall be declared to have passed the whole examination, i.e. Part I, II and III, if he/she passes in all the papers – theory & practical. Passing minimum for Foundation Course shall be 50%. The result of each paper of the Foundation Course will be recorded in the marks statement of the appropriate semester, as either PASS or FAIL.
- b) Internship: The candidate should produce a certificate from a school teacher countersigned by the Head Master / Principal of the school where he/she undergone training. Their performance during the internship training should be declared as Commended / Not Commended by the supervising teacher.

- c) A candidate failing to secure the minimum marks prescribed, shall be required to reappear for the examination in that paper / practical and obtained not less than the minimum marks required for passing the paper / practical.

9. CLASSIFICATION OF SUCCESSFUL CANDIDATES

- (i) A candidate who passes all the part III examinations in the first attempt within a period of three years securing 75% and above in the aggregate of part III marks shall be declared to have passed B.A. / B.Sc. degree examination in First Class with DISTINCTION.
- (ii) Successful candidates passing the examinations for part I or part II or part III securing not less than 60 per cent of total marks for the concerned part shall be declared to have passed that part in First Class.
- (iii) Successful candidates passing the examinations for part I or part II or part III securing not less than 50 per cent but below 60 per cent of total marks for the concerned part shall be declared to have passed that part in Second Class.
- (iv) All other successful candidates shall be declared to have passed the part I or part II or part III examinations in Third Class.

10. CONFERMENT OF THE DEGREE

No candidate shall be eligible for conferment of the Degree unless he / she has undergone the prescribed course of study for a period of not less than three years in an institution approved by / affiliated to the University or has been exempted there from in the manner prescribed and has passed the examinations as have been prescribed therefore. The candidate should also successfully complete the prescribed Internship training as evidenced by a certificate issued by the Head master / Principal of the school.

PAPER 1: PRINCIPLES OF EDUCATION

Objectives

To enable the students to

1. Understand the meaning & nature of Philosophy and Education and appreciate their relationship.
2. Understand the contributions of Indian Philosophy and thinkers to Education.
3. Link educational practices with local socio-cultural situations.

Unit I – Concept and Scope of Education

- Education as acquisition of knowledge.
- Education as growth and development.
- Education as adjustment and self-activity.
- Conservation, Enrichment and Transmission of Socio-cultural heritage.
- Social change and social progress.

Unit II – Philosophy of Education

- Meaning and nature of Philosophy.
- Meaning of Education.
- Relation between Philosophy and Education.
- Philosophy in relation to aims of education, curriculum, teaching learning methods, role of teacher and personality development.

Unit III – Educational Thinkers

- M.K Gandhi– Educational thoughts and work.
- Swami Vivekanandha – Educational thoughts and work.
- Rajarshi Chatrapati Shabu – Educational thoughts and work.
- Madam Montessory’s Educational thoughts and work.
- John Dewy, Educational thoughts and work.

Unit IV – Bases of Education

- Psychological, Philosophical and Sociological bases.
- Development of educational thought and ideas in relation to aims, curriculum, method of instruction, discipline and the role of teacher with References to the main schools of Philosophy.
- Idealism, Naturalism and Pragmatism as well as great educators– Rousseau, Froeble, Montessori, Dewey, Rabindranath and Gandhiji.

Unit V – Challenges of Education

- Multicultural Society.
- Diversity with respect to – Caste, Religion, Language and habitat.
- Poverty, corruption, drug, alcohol addiction.
- Population explosion, gender disparity LPG.

References

1. Saiyidain, K. G. (1970) 'Facts of Indian Education', New Delhi: NCERT.
2. Ross, James (1962), Groundwork of Educational Theory, London: George Harre and Sons.

3. Nun, T. P. (1968), *Education, its Data and First Principles*, London: Edward Arnold.
4. Mohanti, J. (1987), *Democracy and Education in India*, New Delhi: Deep and Deep Publishers.
5. Tyagi, P. N. (1991), *Education for All: A graphic Presentation*, New Delhi: NIEPA.
6. Govt. of India (1993), *Education for All: The Indian Scene*, Widentry Horizons, New Delhi: MHRD.
7. Nayar, P. R., Dave, P.N., and Arora, K. (1982), *Teacher and Education in Emerging Indian Society*, New Delhi.
8. Ram Murti Acharya (1990), *Towards an Enlightened and Humane Society – A Committee Report*, New Delhi MHRD.
9. Ruhela, S. P. (1969), *Social Determinants of Educability in India*, New Delhi: Jain Publishers.

PAPER 2: EDUCATIONAL PSYCHOLOGY

Objectives

To enable the students to

1. Understand the meaning, scope and uses of psychology in education.
2. Know about the human growth and development up to the stage of adolescence
3. Know the meaning and purpose of learning and factors influencing learning.
4. Understand the concept of intelligence, its meaning and measurement.
5. Know the heredity and environment and their roles in causing individual differences.

Unit I – Educational Psychology

- Psychology – Meaning, Nature and Scope.
- Relation & Distinction between Education and Psychology.
- Educational Psychology – Definition, Meaning and Scope.
- Applications of Educational Psychology in teaching learning process.

Unit II – Human Development

- Stages of human development: Infancy to adolescence.
- Areas of development – Social, Emotional and Intellectual.
- Psychological characteristics and problems of adolescents.
- Fundamentals of Piagetian developmental psychology.
- Role of Educational Psychology in understanding the individual.

Unit III – Learning

- Learning and maturation.
- Types of learning: Conditioning, Trial & error and Problem solving.
- Laws of learning.
- Learning and Motivation.
- Factors affecting learning.

Unit IV – Individual Differences

- Intelligence: Definition, Nature and Determinants & measurements of Intelligence
- Creativity: Nature, Meaning, Relationship between Creativity and Intelligence, Measurement of creativity.
- Personality: Concept, Development and Structure and Assessment.
- Meaning and Measurement of Interest, Attitude and Values.
- Causes and significance of individual differences and its educational implications.

Unit V – Mental Health and Adjustment

- Concept, mechanism of adjustment.
- Introduction to common forms of neuroses, psychosis and somatic disorders.
- Principles of mental hygiene – preventive, constructive, curative measures.
- Implications for education.

References

1. Bhatia, H. R. (1977), Textbook of Educational Psychology, The McMillan Company of India Ltd., New Delhi.
2. Aggarwal, J. C. (1995), Essential Educational Psychology, Vikas Publishing House Pvt. Ltd., New Delhi.
3. Chauhan, S. S. (1988), Advanced Educational Psychology, Vikas Publication, New Delhi.
4. Sharma, K. N. (1990), Systems, Theories and Modern Trends in Psychology, HPB, Agra.
5. Dececco, J. P. (1977), The Psychology of Learning and Instruction, Prentice Hall of India Pvt. Ltd., New Delhi.
6. Kale, S. V. (1983), Child Psychology and Child Guidance, Himalaya Publishing House, Giragoan, Bombay.
7. Kakkar, S. B. (1989), Educational Psychology & Guidance, The Indian Publication, Hill Road, Ambala, Cantt.

PAPER 3: SOCIOLOGY OF EDUCATION

Objectives

To enable the students to

1. Know the meaning and nature of educational sociology.
2. Be acquainted with Social change and various social factors.
3. Understand Social problems of Education.
4. Know about the cultural aspects of Education.

Unit I – Sociology and Education

- Concept, Nature and Scope of educational sociology.
- Need for sociological approach in education.
- Social Organization: Concept and factors of influence.
- Dynamic characteristics of social organization and its Educational Implications.

Unit II – Education and Social Change

- Education as Social heritage, instrument of social change, factor of social change.
- Agencies of Social change.
- School as a social sub-system.
- Mass media as social means.

Unit III – Social Problems of Education

- Social problems relating to education.
- Equalization of educational opportunities.
- Illiteracy, education for backward classes, education in urban & rural areas.
- Role of community in solving social problems in education.

Unit IV – Education and Culture

- Culture: Meaning and nature, Role of education in cultural context.
- Education and cultural change.
- Cultural determinants of education.
- Social interaction & Social stratification: Educational implications.

Unit V – Education and Society

- Education as a process in the Social System.
- Education as a process of socialization & social progress.
- Education in relation to democracy, freedom, nationalism.
- Education and national integration & international understanding.

References

1. Mohanti, J. (1987), Democracy and Education in India, New Delhi: Deep and Deep Publishers.
2. Tyagi, P. N. (1991), Education for All: A graphic Presentation, New Delhi: NIEPA.
3. Govt. of India (1993), Education for All: The Indian Scene, Widentry Horizons, New Delhi: MHRD.

4. Ruhela, S. P. (1969), *Social Determinants of Educability in India*, New Delhi: Jain Publishers.
5. Bhattacharya and Srinivas (1977), *Society and Education*, Calcutta: Academic Publishers.
6. Durkhiem, Emile (1956), *Education and Sociology*, New York: Free Press.
7. Dewey, John (1973), *The School and Society*, Chicago, University Press.
8. Govt. of India (1986), *National Policy on Education*, New Delhi (MHRD).
9. Govt. of India (1966), *Report of the Education Commission*, Ministry of Education.
10. Mathur, D.S.A. (1966), *Sociological approach to Indian Education*, Agra: Vinod Pustak Mandir.

PAPER 4: FUNDAMENTALS OF TEACHING

Objectives

To enable the students to

1. Understand the concept and types of teaching skills, techniques, methods.
2. Be acquainted with Teaching Technology.
3. Understand the concept of learning environment.
4. Get knowledge about the concept and types of tools and techniques of evaluation.

Unit I – Teaching: Techniques, methods and models

- Micro teaching: Concept, Classification and acquisition of teaching skills.
- Techniques: Concept of observation and interview techniques.
- Methods of teaching: Individualized, Small and Large group.
- Models: Classification of models by Bruce–Joycee.

Unit II – Teaching Technology

- Concept of Teaching.
- Interdependence between teaching and learning.
- Perception, Planning and Performance of teaching.
- Media in Teaching.

Unit III – Learning Environment

- Concept of learning environment.
- Resource based learning and Resource based instruction.
- Self learning.
- Role of teacher in designing learning environment.

Unit IV – All Round Development of Learner

- Growth and Development.
- Dimensions of development.
- Development of Communication skills, Life skills, Social skills, Creativity.
- Development of Personality, Integrated Personality.

Unit V – Tools and Techniques of Evaluation

- Concept of Measurement and Evaluation, Types of evaluation.
- Bloom’s Taxonomy.
- Tools and Techniques for evaluation, Teacher made and Standardized tests.
- Standard scores Z & T.

References

1. Canon L. & Monin L. (1974) A Guide to Teaching Practices London: Methner & Co Ltd.
2. Gagen N.L. (Ed) (1963) Analyzing Teaching Behaviour. Chicago Rand McNally College Publishing Co.
3. Flanders N.A. (1970) Analysing Teaching Behaviours, Massachusetts. Addison welesly Publishing Co Reading

4. Joyce B. Well M.(1985) Models of Teaching. New Delhi Prentice hall of India.
5. Teacher Education Curriculum –A Framework NCTE (1978) New Delhi, NCERT

PAPER 5: TEACHING LEARNING PROCESS

Objectives

To enable the students to

1. Analyze different types of Learning and Teaching.
2. Describe various teaching Strategies and Methods.
3. Understand various teaching techniques.
4. Know the applications of teaching aids.

Unit 1 – Teaching and Learning

- Modalities of teaching: Training, Instruction, Conditioning, Indoctrination and Educative teaching.
- Concept of Learning, Types of Learning.
- Relation between Teaching and Learning.
- Levels of Learning and Teaching: Memory, Understanding and retention.

Unit 2 – Teaching Effectiveness

- Concept of teaching effectiveness.
- Variables involved in teaching effectiveness.
- Techniques for teaching effectiveness.
- Assessment of teaching effectiveness.

Unit 3 – Teaching Strategies

- Concept of teaching strategies.
- Difference between Teaching Strategies and Teaching Tactics.
- Mastery learning, Personalized System of Instruction, PIM, CAI.
- Simulation and Gaming.

Unit 4 – Methods of Teaching

- Telling method, Lecture method.
- Discussion, Demonstration, Brain Storming.
- Assignment, Project method.
- Supervised study.

Unit 5 – Technological Aids in Teaching–Learning

- Teaching Aids: Nature, Characteristics, advantages and disadvantages and limitations.
- Projected and Non–Projected aids.
- Audio–Visual appliances.
- Computers and internet.

References

1. Aggarwal J.C. Essentials of Educational Technology, Vikas Publishing house, New Delhi.
2. Kumar K.L. (1996) Educational Technology, New Age International Pvt. Ltd
3. Kulkarni, S. S. (1986), Introduction to Educational Technology, New Delhi: Oxford–IBH Pub. Co

4. Mattoo, B. K., *New Teaching Technology for Elementary School Teachers*, New Delhi: Federation of Management of Educational Institutions.
5. Murunalini, T. (1997), *Education and Electronic Media*, New Delhi: ABH Publishing Corporation.
6. Sharma, R. A. (2001), *Technological Foundations of Education*, Meerut: R. Lal Book Depot.

PAPER 6: GUIDANCE AND COUNSELING

Objectives

To enable the students to

1. Understand the meaning of Guidance and Counseling.
2. Develop ability to assess students' strengths and weaknesses.
3. Understand the concept of mental health and hygiene.
4. Understand the qualities of an ideal counselor.

Unit 1 – The concept of Guidance

- Meaning, nature and scope of guidance.
- Philosophical, Psychological and Sociological bases of guidance.
- Need and importance of educational guidance services in schools.

Unit 2 – Vocational Guidance

- Purpose and functions of vocational guidance.
- Relation between educational and vocational guidance.
- Relation between vocational guidance and work education.

Unit 3 – Educational Guidance

- Basic data necessary for educational guidance.
- Knowledge about pupils' abilities, aptitudes and interests.
- Construction, administration and interpretations of Cumulative record cards, Individual inventories.

Unit 4 – The Concept of Counseling

- Meaning, nature and scope of Counseling.
- Different types of counseling.
- Various steps and techniques of Counseling.

Unit 5 – Mental Health

- Concept of Mental health and hygiene.
- Causes and symptoms of maladjustment.
- Adjustment Mechanisms.

References

1. Bengalee, M. (1984), Guidance and Counseling, Bombay: Seth Publishers.
2. Crow and Crow (1968), Introduction to Guidance, 2nd Ed., New Delhi: Earasia Publishing Co.
3. Jayaswal, Monica (1968), Guidance and Counseling, Lucknow: Prakashan Kendra.
4. Dave Indn. (1984), The Basic Essential of Counseling, New Delhi: Sterling Publishers.
5. Nugent, Frank A. (1990), An Introduction to Profession of Counseling, Columbus: Merrill Publishing Co.

6. Rao, S. N. (1992), *Counseling and Guidance*, New Delhi: Tata McGraw Hill.
7. Mehdi, B. C. (1978), *Guidance in Schools*, 3rd Ed. New Delhi: NCERT.
8. Bennet, M. E. (1963), *Guidance and Counseling in Groups*, New York: McGraw Hill.
9. Mehta, P.H. and Wadia, K. A. (1972), *Handbook for Counselors*, New Delhi: NCERT.
10. Stefflire, B. (1972), *Theories of Counseling*, (Ed), New York, McGraw Hill.

PAPER 7: EDUCATIONAL EVALUATION

Objectives

To enable the students to

1. Develop understanding of the concepts of Educational Evaluation and Measurement.
2. Be acquainted with different types of evaluation.
3. Know about the test construction and scoring procedures.

Unit 1 – Conceptual Framework

- Concept, Purpose and Functions of evaluation.
- Terminology Web: Examination, Technique, Tool, Measurement, Test, Assessment, Appraisal and Evaluation.
- Principles of Evaluation.
- Phases of Evaluation.

Unit 2 – Educational Measurement

- Meaning, Nature and Scope of Evaluation and Measurement.
- Need for measurement in education.
- Relation between measurement and evaluation.
- Norm and Criterion Referenced tests.

Unit 3 – Types of Test

- Different types of Tests in Education.
- Achievement tests: Construction and Standardized achievement test.
- Measurement of Intelligence: Individual and Group tests.
- Aptitude & Personality tests, Interest inventories.

Unit 4 – Tools of Measurement

- Classification of measuring instruments.
- Types of scales in educational measurement.
- Validity, Reliability and Objectivity.
- Measurements of Interest, Attitude and personality

Unit 5 – Test Construction

- General Principles of Test construction.
- Standardization procedures.
- Scoring methods and interpreting test scores.
- Reporting test results – Cumulative record card.

References

1. Anastasi, A. (1988), Psychological Testing, 6th ed. ,New York, MacMillan Inc.
2. Baker, F. A. (1989), Computer Technology in Test Construction and Processing, in R. L. Linn, (edited book on Educational Measurement).
3. Bloom, B. S. (1968) and others (1956), Taxonomy of Educational Objectives, New York, David McKay Co. (also Boo II, Book III).

4. Conoley, J. C. (ed.) (1990), Tenth Mental Measurement Year Book, Lincoln N. F. Buros Institute of Mental Measurements.
5. Cronbach, L. J. (1984), Essentials of Psychological Testing, 4th ed. New York: Harper & Row.
6. Ebel, R. L. and Frisbie, David A. (1991), Essentials of Educational Measurement, New York: Harper & Row.
7. Ebel, R. L. and Frisbei, David A. (1991), Essentials of Educational Measurement, New Delhi: Pentice Hall of India Pvt. Ltd.
8. Freeman, F. S. (1965), Theory and Practice of Psychological Testing, New Delhi: Oxford and IBH Publishing Co.
9. Gronlund, N. E. and Linn, R. L. (1990), Measurement and Evaluation Teaching, 6th ed., New York: MacMillan Publishing Co.
10. Linn, R. L. (1989) (ed.), Educational Measurement, New York: MacMillan.

PAPER 8: METHODOLOGY OF TEACHING LANGUAGES

Objectives

To enable the students to

1. Develop the understanding of nature, functions and implications of planning and teaching languages.
2. Know the psychology and pedagogy of language learning and teaching.
3. Develop understanding and skill in differentiating between teaching language and literature in the context of L1 & L2.
4. Be acquainted with the various methods of teaching language and literature.

Unit 1 – Language Education

- Nature, Functions and implications for planning and teaching language (L1&L2).
- Nature, meaning and functions of Linguistics and Language.
- Nature and Functions of linguistics: Contrasting analysis, Error analysis and Structural linguistics.
- Factors affecting language learning and language acquisition.

Unit 2 – Teaching Languages

- Constitutional provisions regarding language education.
- Teaching first, second and other languages (L1, L2 & L3): Differences in objectives, instructional materials and evaluation.
- Factors affecting teaching L2 & L3.
- Teaching language and literature: Differences in nature and content, Interrelationships.

Unit 3 – Methods of Teaching Language Skills

- Developing basic language skills.
- Intermediate and advanced language skills.
- Basic skills in reading and writing.
- Teaching poetry and prose.
- Innovative techniques in teaching grammar, reading comprehension, written expression and note making.

Unit 4 – Self-learning methods

- Individualization of language learning: need and techniques.
- Differential assignments.
- Class room tasks.
- Personalized system of instruction.
- Individualized programmed learning, need based reading and writing programmes.

Unit 5 – Testing and Assessment

- General principles of testing/assessment.
- Framing of tests on Reading, Writing and Grammar & Vocabulary.
- Evaluation of continuous writing, mechanical, grammatical discourse and judgment skills.

References

1. Curtain, H.A. & Dahlburg, C.A. (2004). Languages and children—Making the match (3rd ed.), White Plains: Longman.
2. Omaggio Hadley, A. (2001). Teaching language in context (3rd ed.). Boston: Heinle and Heinle.
3. High, J. (1993). Second Language Learning Through Cooperative Learning. San Juan Capistrano, CA: Kagan Cooperative Learning.
4. Peregoy, S.F., & Boyle, O. F. (1997). Reading, Writing, and Learning in ESL. New York: Longman.

PAPER 9: METHODOLOGY OF TEACHING MATHEMATICS

Objectives

To enable the students to

1. Understand and appreciate the uses and significance of mathematics in daily life
2. Know the methods of planning instruction for the classroom
3. Prepare curricular activities and organize the library
4. Obtain feedback both about teaching as well as student's learning

Unit 1 – Mathematics Education

- Meaning of mathematics.
- History of mathematics.
- Contributions of Indian mathematicians with References to Bhaskaracharya, Aryabhatta, Leelabathi, and Ramanujam.
- Contributions of Euclid, Pythagorus, Rene–descarte.

Unit 2 – Objectives and Approaches

- Objectives in terms of instruction and behaviour.
- Approaches to teaching mathematics: Inductive, Deductive, analytical, Synthetic, Heuristic, Project and Laboratory.
- Using various techniques for teaching mathematics: Oral, written, drill, assignment.
- Supervised study and programmed learning.

Unit 3 – Materials for Teaching Mathematics

- Lesson Plan: Meaning, Purpose and Importance.
- Meaning and purpose of Unit Plan.
- Preparing low cost teaching aids.
- Skills in using black board, models, charts, TV, films and Video.

Unit 4 – Activity Oriented Methods

- Mathematics as a game for recreation.
- Organizing Quiz programmes.
- Puzzles, riddles, magic squares and short cuts in vedic maths.
- Developing a mathematics laboratory.

Unit 5 – Evaluation

- Textbooks in mathematics.
- Qualities of good text book.
- Cognitive, affective and psychomotor developments.
- Feedback and evaluation in mathematics.

References

1. Van Ments, M. (1990), Simulations, Games and Role Play, Handbook of Educational Ideas and practices, London: Routledge.
2. Countryman, J. (1992). Writing to Learn Mathematics Portsmouth, NH: Heinemann.

3. Jacobs, J. E., Becker, J. R., & Gilmer, G. F. Reston, VA: The National Council of Teachers of Mathematics.
4. Posamentier, A. S., and J. Stepelman. Teaching Secondary School Mathematics (4th ed.) Englewood Cliffs, NJ: Prentice Hall, 1995.
5. Bassler and Kolb, Learning to Teach Secondary School Mathematics Intext Educational Publishers
6. Mager, R. (1984). Preparing Instructional Objectives. Belmont, CA: Pitman Learning, Inc.
7. Grouws, D.A., Ed. (1992). Handbook of research on mathematics teaching and learning. New York: Macmillan Publishing Company.
8. Wilson, P.S., Ed. (1993). Research Ideas for the Classroom: High School Mathematics. New York: Macmillan Publishing Company.

PAPER 10: METHODOLOGY OF TEACHING SCIENCE

Objectives

To enable the students to

1. Develop a broad understanding of the principles and procedures used in modern science education
2. Develop their essential skills for practicing science education
3. Prepare acceptance lesson models for teaching science

Unit 1 – Nature of Modern Sciences

- Thrust areas in particular sciences.
- Impact of science in modern communities.
- Globalisation and Science.
- Professions in the area of science.
- Science as a subject of study i.e. school curriculum.

Unit 2 – Objectives of Teaching Physical & Biological science

- Taxonomy of educational objectives.
- Other taxonomies and approaches: Process & Product outcomes and Concept attainment.
- Concept of entry and terminal behaviour.
- Organizing learning experiences for achieving specified behavioural outcomes.

Unit 3 – Planning for Teaching Science

- Developing year plan, lesson plan, unit plan
- Content and pedagogical analysis and identification of important concepts
- Preparation and development of improvised apparatus, teaching aids
- Micro teaching, Computer assisted teaching.

Unit 4 – Teaching and Learning Strategies

- Major methods of Science Instruction: Lecture, Demonstration, Lab experiment, Project work, Play way method, Team teaching, Supervised study.
- Activity and Non-formal methods.
- Field trips, schools gardening, Science club, Science museum visit, maintenance of aquariums, herbariums, terrariums, original science projects.
- Curricular and support materials, Text books, journals, hand books, work books, display slides, laboratory materials, audio & video materials, Programmed Instructional materials and CAI packages.

Unit 5 – Evaluating outcomes of science

- Text assumptions.
- Item formats and tryouts.
- Item analysis: mode list and scoring procedure.
- Developing test for measuring specific outcomes: Cognitive, affective, and psychomotor process and product outcomes, scientific reasoning and activity.

References

1. Das, R. C. (1985), Science Teaching in Schools, New Delhi: Sterling Publishers Pvt. Ltd.

2. Thurber & Cullette, Teaching Science in Today's School
3. Sharma, R. C. (1990), Modern Science Teaching, New Delhi: Dhanpat Rai & Sons.
4. Thurber, W. A. & Collette, A. T. (1967), Teaching Science in Today's Secondary Schools, New Delhi: Prentice Hall of India Pvt. Ltd.
5. Mangal, S. K. (1995), Teaching of Physical and Life Science, New Delhi: Avg Book Depot, Karol Bagh.
6. Sharma, R.C. (1995), Modern Science Teaching, Delhi: Dhanpat Rai & Sons.

PAPER 11: METHODOLOGY OF TEACHING SOCIAL SCIENCES

Objectives

To enable the students to

1. Develop an understanding of all topics to be taught in Social Sciences.
2. Know the Aims, Values and Instructional objectives of teaching Social Sciences.
3. Develop Curriculum activities pertinent to teaching Social Sciences.
4. Use Modern Techniques in teaching Social Sciences.

Unit 1 – Nature and Structure of Social Sciences

- History: Meaning, Definition, Nature and characteristics of Social Sciences/Social studies (History, Geography, Sociology and Economics).
- Social Sciences as a Science and Art.
- Social Sciences as a record of past with relevance to present and future.
- Objective of teaching Social sciences, Scope and dynamics of Social Sciences.

Unit 2 – Aims, Goals, Objectives and Values of Studying Social Sciences

- Teaching and Learning of Social sciences.
- Preparation & Need: Year plan, Unit plan, and Lesson plan.
- Formulation of performance: Cognitive, Affective and Psychomotor values.
- Practical, Cultural, Ethical and Disciplinary values of teaching Social Sciences.

Unit 3 – Teaching Strategies

- Traditional methods: Lecture, Oral, Recitation, Review, Drill, Story telling, Inductive and Deductive.
- Project method and Problem solving approach.
- Team teaching, group learning and individualized learning.
- Teaching through multimedia.

Unit 4 – Learning Strategy

- Assignment: Oral, Written and drawing forms –Learning from books, journals and media.
- Preparation of models and specimens and Collection of Stamps and Coins.
- Visit to related fields: Temples, Museums, Art-galleries and Exhibitions.
- Self-learning materials and using instrumental materials.

Unit 5 – Evaluation

- Objective of evaluation of Social Sciences.
- Test, measurement and evaluation in teaching and learning of Social Sciences.
- Different types and characteristics of tests.
- Need for continuous evaluation, cumulative record card.

References

1. Bining, A.C. and Bining, D.H. (1952), Teaching the Social Studies in Secondary School, N.Y.: McGraw Hill Book Company
2. Choudhary, K. P. (1975), The effective Teaching of History in India, New Delhi: NCERT.

3. Dhanija Neelam (1993), *Multimedia Approaches in Teaching Social Studies*, New Delhi: Harmen Publishing House.
4. Dixit and Bughela, H. (1972), *Itihas Shikshan*, Jaipur: Hindi Granth Academy.
5. Fenton, Edwin (1967), *The New Social Studies*, New York: Ho Rinehart, Winston, Inc.
6. NCERT, (1988), *Guidelines and Syllabi for Secondary Stage (Class IX, X)*, New Delhi: NCERT.
7. Kochar, S. K. (1963), *The Teaching of Social Studies*, Delhi: University Publishers.
8. Mofatt, M.R. (1955), *Social Studies Instruction*, New York: Prentice Hall.
9. Willey E.B "Teaching social studies in high schools", Health & Co