

B.Ed. - First Year
I - Theory Components

Group - A: Perspectives in Education

Course Code	Name of the Course	Internal Mark	External Mark	Total Mark
FPEPL	Psychology of Learners and Learning	30	70	100
FPEEC	Education in Contemporary India	30	70	100
FPEES	Education and Socialisation	30	70	100
FPEET	Essentials of Teaching and Learning	30	70	100
Sub - Total		120	280	400

Group - B: Curriculum and Pedagogic Studies

Course Code	Name of the Course	Internal Mark	External Mark	Total Mark
FCPTA	Pedagogy of Tamil : Part - I	30	70	100
FCPEN	Pedagogy of English: Part - I			
FCPUR	Pedagogy of Urudhu: Part - I			
FCPMA	Pedagogy of Mathematics : Part- I			
FCPCS	Pedagogy of Computer Science : Part- I			
FCPPS	Pedagogy of Physical Science : Part- I			
FCPBS	Pedagogy of Biological Science : Part- I			
FCPHI	Pedagogy of History : Part - I			
FCPGE	Pedagogy of Geography : Part- I			
FCPEC	Pedagogy of Economics: Part- I			
FCPCA	Pedagogy of Commerce and Accountancy : Part- I			
FCPHS	Pedagogy of Home Science : Part- I			
FCPSS	Pedagogy of Social Science : Part- I*			
FCPAL	Assesment of Learning	30	70	100
Sub - Total		60	140	200

Group - C: Enhancing Professional Capabilities (Compulsory for all student - teachers)				
Course Code	Name of the Course	Internal Mark	External Mark	Total Mark
FEPCY	Yoga, Health and Physical Education	30	70	100
FEPCE	Environmental Education	30	70	100
FEPCI	Information and Communication Technology in Education	30	70	100
Sub - Total		90	210	300
Grand Total		270	630	900

NOTE: * The Pedagogy of Social Science is mandatory for the student teachers who have studied the following main subjects:

1. Philosophy
2. Psychology
3. Sociology
4. Logic and
5. Political Science

B.Ed : First Year
II. Practicum Components

Sl.No	ACTIVITIES	Level-I	Level-II	Total Marks
		Marks	Marks	
1	<p>School Internship (4 Weeks) (Allotment of schools for School Internship for student- teachers are subject to prior approval from the concerned District educational authorities. The Principals of the Colleges of Education have to submit the School Internship Schedule to the Tamilnadu Teachers Education University)</p> <ul style="list-style-type: none"> - Observation of Mentor Classes Level - I & Level - II - Identifying and Analysing the Diverse Needs of the Learners - Exploring and Preparing Teaching Learning Materials (TLM) for Level -I & Level - II - Reflections on Continuous and Comprehensive Evaluation (CCE) practiced in Co-operative Schools - Assessing and reporting on the Environment context of Co-operative Schools. - Organisation of Study Circles / Science Clubs / Forums with respect to the nature of the basic subject of student - teachers - Interactions with School Administrators, Teachers, Parents and Community - Analysing and Reflecting on the School Textbooks of Level - I & Level - II 	-	-	-
2	<p>Observation Records</p> <p>a) Observation Record : Level - I (10 Observation of Mentor Teacher Classes @ 2 Observations X 5 School Subjects)</p> <p>b) Observation Record : Level - II (10 Observation of Mentor Teacher Classes pertaining to the basic Subject of the student-teachers)</p>	10	10	20
3	<p>Demonstration Records (Demonstration by Teacher Educators, Subject Experts/Senior School Teachers and Peer Teachers)</p> <p>a) Demonstration Record : Level - I (5 Observation of Demonstration Classes @ 1 in each School Subject)</p> <p>b) Demonstration Record : Level - II (5 Observation on Demonstration Classes pertaining to any 5 Pedagogic Courses offered by the Colleges of Education inclusive of Student-teachers basic Subjects)</p>	10	10	20

Sl.No	ACTIVITIES	Level-I	Level-II	Total Marks
		Marks	Marks	
4	Micro Teaching Records a) Micro Teaching Record : Level - I i) Practicing any 5 skills @ 1Skill in each School Subject ii) Observation of any 5 Peer's Microteaching lessons @ 1 in each School Subject and also 1 Link lesson (partial and full integration) arranged by the respective Colleges of Education b) Micro Teaching Record : Level -II i) Practicing any 5 Skills related to the basic Subject of student - teachers ii) Observing and rating of Peer's any 5 Microteaching lessons related to the basic Subjects of the Student-teachers iii) Observing and recording of Link lesson (partial and full integration) arranged by the respective Colleges of Education	15	15	30
5	Projects on Identifying and Analysing the Diverse Needs of Learners (Below average, Average, Above average, Gifted and Differently abled) a) Level - I b) Level - II	15	15	30
6	Preparation and Contribution (after passing the first year practical examinations) of Teaching and Learning Materials (TLM) to Co-operative Schools (a) Level - I (10 TLM - 2 TLM X 5 School Subjects) (b) Level - II (10 TLM pertaining to the basic Subject of the student-teachers)	20	20	40
7	Reflective Record on Continuous and Comprehensive Evaluation (CCE) Practiced in the Co - operative Schools Level - I or Level - II (This activity shall be related to anyone of the School subjects)			20
8	Test and Measurement Records (Based on the Marks available in the School Mark Registers) a) Level - I b) Level - II	20	20	40
9	Environmental Education Record (Student - teachers need to assess and write a detailed report on the environmental context of the Co - operative Schools)	-	-	20
10	Case Study Record - Individual Level - II		20	20
11	Psychology Experiment Record (3-Paper-Pencil Tests and 3 Experiments)	-	-	50

Sl.No	ACTIVITIES	Level-I	Level-II	Total Marks
		Marks	Marks	
12	Reading and Reflecting on School Textbooks (Reading and Reflecting the Textbooks of the student-teachers basic Subjects)	-	-	20
13	Citizenship Training Camp Record (Camp should be organised for a period of 5 days with prior approval from the Tamilnadu Teachers Education University)	-	-	20
14	Educational Technology Record	-	-	20
15	Yoga, Health and Physical Education Record (Observing and recording the Yoga, Health and Physical Education activities conducted in the Colleges of Education and also teaching and practicing 1 activity related to Yoga, Health awareness and Physical activity respectively at Level - I)	-	-	25
16	Practicum / Field work related Tasks and Assignments for each Theory Courses carry the weightage of 25 marks. List of Tasks and Assignments to be carried out by the Student-teachers based on the Suggested Activities are given at the end of the Syllabus of each Theory Course. Coursewise Tasks and Assignments are to be submitted in the form of separate Records at the time of Practical Examinations.	-	-	9 Theory Courses x 25 marks = 225
		-	-	600

NOTE : (a) Level - I refers to Standard VI to VIII (Upper Primary), compulsory for all student - teachers.

For activities pertaining to Level - I, student-teachers shall select either Standard VI or VII or VIII as per the requirement of the Co-operative schools.

(b) Level - II refers to Standard IX & X (Secondary) for UG qualified student - teachers / Standard XI & XII (Higher Secondary / Senior Secondary) for PG qualified student - teachers.

Scheme of Continuous and Comprehensive Evaluation (30 Marks)		
S.No	Components	Marks
1	Assignments (Average of Two Assignments)	10
2	Seminar	10
3	Class Tests (Average of 2 Unit Tests)	10
	Total	30

Scheme of External Examination (70 Marks)
Maximum Time Duration : 3 Hours

Section	Type of Question	No. of Questions	Marks for each Question	Total Marks
A	Very Short Answer (Maximum of 50 words for each question)	10	2	20
B	Short Answer (Maximum of 200 words for each question)	4 out of 6	5	20
C	Essay (Maximum of 750 words for each question)	3 (with Internal choice)	10	30
			Total	70

B.Ed., DEGREE PROGRAMME - FIRST YEAR SYLLABUS**COURSE CODE: FPEPL****PSYCHOLOGY OF LEARNERS AND LEARNING****OBJECTIVES:**

At the end of the course, the student-teachers will be able to

- acquire knowledge about the approaches to educational psychology;
- comprehend the concepts growth and development and various theories of growth and development;
- gain knowledge about the concept of learning and its related theories;
- identify the various types of memory;
- understand motivation and its influence on human behavior;
- understand in-depth concepts of intelligence and creativity;
- understand the concepts and theories of personality;
- understand the concept of individual differences;
- identify the various adjustment mechanisms; and
- understand the types of guidance and counselling programme.

UNIT – I: INTRODUCTION TO EDUCATIONAL PSYCHOLOGY

Psychology: Meaning - Branches of Psychology - Methods of Study in Psychology - Schools of Psychology - Structuralism, Psychoanalysis, Behaviorism, Humanism, Transpersonalism, Gestalt Cognitive Psychology - Its implications - Educational Psychology: Meaning, Scope and Significance.

UNIT – II: GROWTH AND DEVELOPMENT OF THE LEARNER

Growth and Development: Meaning, factors influencing Growth and Development - Stages of development and its characteristics - Adolescence problem and remedies - Dimensions of development: Physical, Cognitive, Social, Emotional and Moral - Theories of

development - Piaget's cognitive development - Freud's psycho sexual development - Erikson's psycho - social development.

UNIT – III: LEARNING

Learning: Concept, principles and factors affecting learning - Theories of learning: Thorndike's Connectionism, Pavlov's classical and Skinners Operant Conditioning, Learning by Insight, Hull's Reinforcement theory - Transfer of training and its theories and their educational implications – Metacognition: Meaning, Elements and its Instructional strategies - Learning Styles: Audio, Visual and Kinesthetic - Teacher's role in changing, strengthening and sustaining learning styles.

UNIT – IV: ATTENTION AND MEMORY

Attention: Meaning, nature, distraction, inattention, divided attention and span of attention - determinants of attention - sensation and perception - Law of perception: errors in perception (Illusion and Hallucination) - Concept Formation: types and theories - Memory: meaning, types of memory, Storage system of memory and strategies for improving memory - Forgetting: meaning, causes, theory of forgetting - Memory disorder.

UNIT – V: MOTIVATION AND GROUP DYNAMICS

Motivation: Definition, types of motivation, factors influencing motivation - Theories of motivation: Maslow's Hierarchy of needs, McClelland's theory of Achievement Motivation - Its educational implications - Level of Aspiration - Promoting Achievement motivation among learners - Group dynamics: Meaning, definition, types and characteristics - Transactional Analysis (TA).

UNIT – VI: INTELLIGENCE AND CREATIVITY

Intelligence: meaning, definition and types - Theories of Intelligence: Spearman Two factor, Thurston Group factor, Thorndike Multi factor, Guilford Structure of Intellect, Gardner Multiple Intelligence, Emotional Intelligence - Theories of Emotional Intelligence

- Intelligence Quotient - Nature and Types of Intelligence test - Use of Intelligence test - Creativity: Concept, factors and process - Strategies for fostering creativity.

UNIT – VII: PERSONALITY

Personality: Meaning - Determinants of personality: Type theory, Trait theory and Development theory - Integrated Personality - Assessment of Personality: Projective, Non-Projective techniques and Dream analysis.

UNIT – VIII: INDIVIDUAL DIFFERENCES

Concept of Individual differences - Role of Heredity and Environment in individual differences - Nature of Gifted, slow and disabled children - Understanding learners with varying cognitive abilities especially with ‘learning difficulties’ - Slow learners: Dyslexia, Dyscalculia and Dysgraphia - Educational programmes for differently abled students.

UNIT – IX: ADJUSTMENT AND MENTAL HEALTH

Adjustment: Meaning - Adjustment mechanisms - Adjustment problems of children adolescents - Causes of maladjustment: Conflict and Frustration - Differences between adjusted and maladjusted adolescents - Criteria for good mental health - Concept of mental hygiene - Techniques of stress management - Meditation and violence prevention programmes.

UNIT – X: GUIDANCE AND COUNSELLING

Guidance and Counselling: Nature, principles and scope - Types: Personal, Educational, Social, Vocational, Avocational and Health - Its implications in the global context - Guidance Services: Orientation service - Educational and occupational information service - Counselling service, placement and follow up - service - Guidance for special children: Slow learners, children with mental retardation and gifted - Juvenile delinquency.

SUGGESTED ACTIVITIES:

1. Observe and inquire the process of learning by children from different backgrounds and record your observations.
2. Prepare an album of any 10 psychologists and their contributions to learning process.
3. Visit any two Special Education Institutions and write a report on the methods of teaching.
4. Visit anyone of the Mental Health Institute/Deaddiction Centers nearer to you and prepare a detailed report about it and submit.
5. Visit anyone of the Vocational Education Centre and prepare a report on the Job-oriented courses offered to the differently abled students.

PSYCHOLOGY EXPERIMENT

Choose any **THREE** from **Group A** and **Group B** respectively and administer the tests/experiments, and submit the record at the time of practical examination:

Sl. No.	GROUP A (Paper-pencil Test) (Test to be administered with appropriate standardized tools on the following aspects)	Sl. No.	GROUP B (Apparatus Test)
1.	Stress Management	1.	Finger Dexterity Test
2.	Adjustment	2.	Span of Attention
3.	Creativity	3.	Insight Motor Learning - Maze Learning
4.	Intelligence	4.	Habit Interference
5.	Interest	5.	Division of Attention
6.	Mental Health	6.	Electrical Mirror Drawing
7.	Personality	7.	Level of Aspiration
8.	Self – Concept	8.	Problem-Solving

SUGGESTED READINGS:

Agarwal (2004). *Psychology of Learning and Development*. New Delhi: Shipra Publications.

Allen, B P. (2006), (5th ed.). *Personality Theories: Development, Growth and Diversity*. Needham Heights, MA: Allyn and Bacon.

Alexander, N. (2003). *Global Trends in Mediation*. Walters Kluwer Law and Business.

Berk. L. E, (2010) (8th ed.). *Child Development*. New Delhi: PHI Publications.

Bhatia, K.K. (2003). *Bases of Educational Psychology*. New Delhi: Kalyani Publishers.

Burger, J.M. (2010) (8th ed.). *Personality*. KCA: Wordsworth Publishing.

Boulle, L. Jones, J. Goldblatt, V. (1998). *Mediation: Principles, Process, Practice*. (New Zealand Edition). Wellington: Butterworth.

Cloninger, S.C. (2008) (5th ed.). *Theories of Personality: Understanding Persons*. Englewood Cliffs, New Jersey: Prentice Hall

Crowne, D. P. (2010) (2nd ed.). *Personality Theory*. New York: Oxford University Press.

Chauhan, S.S. (2002). *Advanced Educational Psychology*. New Delhi: Vikas Publishing House.

Dandapani (2002) (2nd ed.). *Advanced Educational Psychology*. New Delhi: Anmol Publication.

Dash (2003). *Guidance Services in Schools*. New Delhi: Fominant Publishers and Distributors.

Dash Muralidhar (2009). *Educational Psychology*. (Reprinted). Deep & Deep Publications.

Douglas. J. Hacker, John Dunlosky, Arthur C. Graesser. (editors) (1998). *Metacognition in Educational Theory and Practice*. New Jersey: Lawrence Erlbaum Associates.

Eyler, Janet & Giles, Dwight (1996). *A Practitioners Guide to Reflection in Service Learning*. Nashville: Vanderbilt University.

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Harry Morgan (1997). *Cognitive Styles and Classroom Learning*. Westport CT: Praeger Publisher.

Mangal. S.K (2002). *Advanced Educational Psychology*. New Delhi: Prentice Hall of India.

Matthews, G. Deary, I. J., &Whiteman, M.C. (2009) (2nd ed.). *Personality: Theory and Research*. New York, USA: Guilford Publications.

Narayan Rao .S, (1990). *Educational Psychology*. New Delhi: Wiley Easter.

Riding. R. (1998). *Cognitive Styles and Learning Strategies: Understanding Style Differences in Learning and Behavior*. London: David Fulton Publishers.

Robert J. Sternberg (2001). *Perspectives on thinking, learning and cognitive styles the educational psychology Series*. Routledge Publications.

Schunk, D.H. (2007) (5th ed.). *Leaning Theories: An Educational Perspective*. New York: Prentice Hall of India.

Shrivastava (2003). *Principles of Guidance and Counselling*. New Delhi: Kanishka Publishers.

Skinner. C.E. (2003) (4th ed.). *Educational Psychology*. New Delhi: Prentice Hall of India.

Sprinth Hall Norman. A and Sprinth Hall, Richar.C. (1990) (5th ed.). *Educational Psychology: A developmental Approaches*. New Delhi: McGraw Hill.

Singh Agya Jit. (2011) (1st ed.). *Introducing the Learner and Learning Process*. New Delhi: Akash Publishers.

Vygotsky, L.S. (1962). *Thought and Language*. Cambridge, MA: MIT Press

Vygotsky, L.S. (1978). *Mind in Society*. Cambridge, MA: Harvard University Press

Wertsch, J.V. (1985). *Cultural, Communication, and Cognition: Vygotskian Perspectives*. New York: Cambridge University Press (CUP).

Water and Schnieder (2009). *Metacognition, Strategy Use and Instruction*. New York: The Guilford Press

Weiten, W & Lloyd M.A. (2007). *Psychology Applied to Modern Life: Adjustment in the 21st Century*. New Delhi: Akash Publications.

Woolfork. A (2009 (9th ed.)). *Educational Psychology*. Singapore: Pearson Education.

COURSE CODE: FPEEC**EDUCATION IN CONTEMPORARY INDIA****OBJECTIVES:**

At the end of the course, the student-teachers will be able to

- acquire knowledge of education ;
- understand the eastern and western schools of philosophy;
- understand the process, functions of education and knowledge of knowing;
- understand the issues and challenges in Indian Society and educational solutions;
- identify the role of various statutory bodies of education;
- understand the constitutional provisions for education;
- describe the concept and importance of teacher autonomy;
- analyse the various psycho-social issues related to students;
- explain the integrated and holistic approach to education for values; and
- elucidate the objectives of the various teacher education programme.

UNIT – I: NATURE AND PROCESS OF EDUCATION

Education - Meaning, Definition, Purpose and Nature – Concept of Education - Functions of Education - Types of Education: Formal , Informal and Non formal - Philosophy: Concept, Meaning and Definition - Branches of Philosophy - Relationship between Philosophy and Education.

UNIT – II: EASTERN AND WESTERN SCHOOLS OF PHILOSOPHY

Eastern Schools of Philosophy: Vedanta, Bhagavat Gita, Jainism , Buddhism and its Educational Implications - Eastern Philosophical Thought: Swami Vivekananda – Mahatma Gandhi – Rabindranath Tagore - Sri Aurobindo – J.Krishnamurthy – Thiruvalluvar and Zakir Hussain. Western Schools of Philosophy: Idealism, Naturalism, Realism, Pragmatism, Existentialism and Constructivism and its Educational Implications. Western Philosophical Thought: Rousseau – Froebel – John Dewey - Montessori – Russell.

UNIT – III: THEORY OF KNOWLEDGE

Knowledge: Meaning - Three Conceptions of Knowledge: Knowledge for Practice - Knowledge in Practice and Knowledge of Practice – Theory of Knowledge: Empiricism, Rationalism, Experimental and Yogic theory – Sources of Knowledge: Sensory Experiences, Reasoning, Authority and Intuition - Facets of knowledge: local and universal- concrete and abstract – theoretical and practical – contextual and textual – Forms of Knowledge: Intuitive knowledge – Demonstrative knowledge – Sensitive Knowledge – Experiential Knowledge – Logical Knowledge – Revealed Knowledge – Digital Knowledge - Difference between information, knowledge and wisdom.

UNIT – IV: AREAS OF EDUCATION

Liberal and Vocational Education - Human Rights Education- Peace Education - Environmental Education –Population Education - Inclusive Education - Education for National and International understanding - Work Experience - Social Aspects of Education: Women Education - Education for deprived people - Education for Minority - Education for Sustainable Development

UNIT – V: CENTRAL AND STATE ORGANISATIONS OF EDUCATION

Central Government Organizations : MHRD-UGC – AICTE – CABE – NUEPA – NCERT – NCTE – NAAC - RCI - State Government Organisations: DSE – SCERT - SIEMAT – University Departments of Education - DIET-BRC- CRCs. Innovative Programmes for Strengthening Quality and Quantity of Education: OBBS, DPEP, SSA, RMSA, and RUSA. Role of International Organisations on Education: ILO, WHO, UNO and UNICEF - Role of NGO's

UNIT – VI: EDUCATION IN THE INDIAN CONSTITUTION

Education in Concurrent List – Directive Principles: Article 21A – Universalisation of Elementary Education - Wastage and Stagnation – Brain Drain and Brain Gain - Right to Education – 42nd and 86th Constitutional Amendments - Right to Education Act (2009) – Equitable Standard Education(Samacheer Kalvi) – University Education

Commission(1948) - Secondary Education Commission (1952 -53) – Kothari Commission (1964 – 66) – NPE (1986) – Acharya Ramamurthy Committee (1990) – POA (1992) – Prof. Yashpal Committee Report (1993 & 2009) – National Curriculum Framework(NCF) 2005 – Sachar Committee Report (2005 - 2006), National Knowledge Commission (2006) – Justice J.S. Verma Committee (2012).

UNIT – VII: MODERN TRENDS IN EDUCATION

Characteristics of Modern Indian Society – Globalization, Liberalization, Privatization, Urbanization, Modernization, Westernization and Digitalization. Role of teacher in the 21st century – Teacher Autonomy: Meaning and types of Teachers’ autonomy – Accountability: meaning, types and functions of accountability – comparison of autonomy and accountability – Digital divide – e-governance in education.

UNIT - VIII: PSYCHO – SOCIAL ISSUES RELATED TO STUDENTS

Absenteeism – Truancy – Delinquency – Violence – Drug Abuse – Smoking and Chewing – AIDS/HIV – Child Abuse – Bullying – Human trafficking – Orphans – Street Children – Child Labour.

UNIT – IX: VALUE EDUCATION

Values: Concept, Meaning and Types – Committees and Commissions views on value education - Theories of Values - Value Education in Schools- Personal Values and Code of Conduct for Teachers – Culture: meaning and definitions – transmission and transformation of culture – Cultural Lag

UNIT - X: TEACHER EDUCATION

Teacher Education: Meaning, definitions and functions – Historical background of Teacher Education in India – Objectives of elementary and secondary teacher education programmes – NCTE(2014) norms and standard for elementary and secondary level – Problems of Teacher Education Programmes and its solutions – Pre-service and in-service teacher education – Open and Distance Learning (ODL)

SUGGESTED ACTIVITIES:

1. Visit any one of the educational institutions based on practicing various philosophies like Ramakrishnamath, Sri Aurobindo Schools, Krishnamurthy Foundations etc., and prepare a report
2. Write and display of education related quotes in your institution
3. Prepare an album about best practices of the schools
4. Organize an Essay Writing Competition for protecting and safeguarding our Eco-System and submit a write up about it
5. Prepare a detailed report on code of conduct observed by the teachers in schools

SUGGESTED READINGS:

Adishesiah, M.S. (1978). *Report of the National Review Committee on Higher Secondary Education with Special Reference to Vocationalisation*. New Delhi: Govt. of India

Aggarwal, J.C. (2009). *Recent Developments and Trends in Education*,. New Delhi: Shipra Publications

Atkin, J. (1996). *Values and Beliefs about Learning to Principles and Practice Seminar Series no. 54*. Melbourne: Incorporated Association of Registered Teachers of Victoria.

Bhardwaj, I. (2005). *Value-oriented Education*. *Journal of Value Education*, 5, 9-24.

Choudhuri, Indranath. (2005). *Promoting Value Education through Children's Literature*. *Journal of Value Education*. 5, 29-36.

Dewey, John. (2010). *Essays in Experimental Logic*, Delhi: Aakar Books

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Gilbert, J. (2005). *Catching the Knowledge Wave? The Knowledge Society and the Future of Education*. Wellington: NZCER Press.

Iida, A. (2009). *Teacher Autonomy and Professional Teacher Development: Exploring the Necessities for Developing Teacher Autonomy in EFL Japanese Contexts*. *Asian EFL Journal*. vol. 35. article 3.

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Loughran, J. (2006). *Developing a Pedagogy of Teacher Education: Understanding Teaching and Learning about Teaching*. London: Routledge.

McGarry, D. (1995). *Learner Autonomy: The Role of Authentic Texts*. Dublin, Simon publishers

MHRD. (1993). *Learning without Burden*, New Delhi: Government of India.

NCERT (2005). *National Curriculum Framework*.

Njayarkulam, K. (2003). *Need for peace and value education to promote inter-religious cooperation*. In. K.P. Joseph (Ed.), *Peace and Value Education: A Creative Response to Consumerism and Communalism*. Dharma Bharathi.of Holistic living. Chennai: Vivekanandha Kendra prakashna Trust Publishers.

Ramos, R.C. (2006). *Considerations on the Role of Teacher Autonomy – Theoretical Discussion Papers*. Available online

<http://caljournal.files.wordpress.com/2010/12/2006>

Rainu Gupta (2011). *Philosophical, Sociological and Economic Bases of Education*. Ludiana: Tandon Publications.

Robinson, V. and Lai, M. K. (2006). *Practitioner Research for Educators: A Guide to Improving Classrooms and Schools*. Thousand Oaks, Calif.: Corwin.

Saraswati, Swami Satyananda (2004). *Nine principles of Upanishads*. Munger: Yoga publication Trust.

Stoll, L., Fink, D., and Earl, L. (2003). *It's about Learning (and it's about Time): What's in It for Schools?* London: Routledge Falmer.

Swami Satprakashananda. (1995). *Methods of Knowledge according to Advaita Vedanta*. Calcutta: Advaita Ashrama Publication Department

UNESCO. (1996). *Learning the Treasure Within Report to UNESCO of the International Commission on Education for the Twenty-first Century*. Paris.

COURSE CODE : FPEES**EDUCATION AND SOCIALIZATION****OBJECTIVES :**

At the end of the course, the Student - Teacher will be able to

- acquire the knowledge of process socialization ;
- understand the basic aspects of Education and society ;
- comprehend the ancient Indian approach of classifying the educational objectives and verbal testimony as the method of effective learning ;
- know about the various agencies of education and their role in society;
- identify the different types of Socialization and Social change in the modern Indian society;
- realize the role of education in promoting Social Mobility;
- appreciate the importance of interpersonal competencies and life skills for social integration;
- comprehend the role of education in societal context as well as cultural context;
- recognise the Rights and Duties of the every citizen and
- develop positive attitude towards the impact of LPG.

UNIT- I: EDUCATION AND SOCIETY

Definition and meaning of Education – Functions of Education – Aims of Education – Factors influencing aims of education – Meaning of society – Social structure – Education as a Sub-system of Indian society – Education as an investment – Characteristics of Education as a Sub-system – Education and its relationship with Indian social structure – Social organisation – Social ideals – School as a social demand for Education.

UNIT- II: HISTORICAL REVIEW OF INDIAN EDUCATION SYSTEM

Education in an Ancient India – Taxonomy of Educational objectives: **Ancient Indian Approach:** Concepts of Sravana, Manana and Nididhyasana -Aptavakyam Learning (Verbal Testimony) -Theory of learning and Ancient Philosophy – Definition: Mechanism – Steps in Aptavakyam learning – Characteristics of Aptavakyam learning – Educational implications of Aptavakyam learning – The cultural impact of Vedic Education in India.

UNIT- III: AGENCIES OF EDUCATION

Formal, Informal and Non-formal agencies of Education – Parent Teachers Association – Extension activities – Religious and Ethical training – Citizenship training – Utilizing community resources – Correspondence and Extension Education – Adult Education – Life-long learning – Open Distance Learning (ODL) – E-learning – Mass media in Education – Role of radio, television, press media, motion picture and Computer in Education.

UNIT- IV: THE INDIVIDUAL AND THE SOCIETY

Society as the background of the moral life - **Nature of society:** The relation of the individual to the society– **Individual:** Mechanical view of society – Collectivism: Organic view of society – The idealistic view of society – The General Will and Common Good – **The criterion of Social Progress:** Egoism, Universalisation and Altruism – Individualism and Socialism – The individual and the state.

UNIT- V: BASIC CONCEPTS IN THE SOCIOLOGY OF EDUCATION

Sociology: Micro-sociology and Macro-sociology and Sociology of Education – **Socialisation:** Meaning of socialisation, Sanskritization, Westernization and Modernization, **Modernization:** Meaning, Characteristics and Factors responsible for modernization, **Democracy:** Meaning and Types and Principles of democracy – Functioning of the school on Democratic Principles and promotion of Democratic Values in the students, **Equality:** Meaning, definition and types of equality – Equality in the

Constitution of India – Equality in Education, **Authority:** Meaning and definition of authority – Authority in Education.

UNIT –VI: EDUCATION IN THE SOCIETAL CONTEXT

Social and Moral Institutions: The family, educational Institutions, Workshops, The Civil Community, Religious Organization and the State - **Social Change:** Types of Social Change – Impact of Societal Changes on the Educational System of India – Educational inputs for Social Change in India –Social Change in the Economic, Social and Cultural life of the people of India – Role of Education in promoting Social Mobility – Role of Universities in Societal Transformation.

UNIT- VII: EDUCATION IN THE CULTURAL CONTEXT

Indian Culture and Tradition: Two-tier system of Indian Culture Values – Composite Culture of India – Material and Non Material culture – **Culture -based Education:** Culture as a system of Values – Blending Indians’ Heritage in Education Role of Educational Institutions and Teachers in Preservation Transmission and Advancement of culture – **Work Culture:** Interpersonal Competencies - Categories of Interpersonal competencies:Essential skills, Management skills, Leadership skills and Contextual skills – **Life-Skill Education:** Types of Life skills and Strategies for Life - skills Education.

UNIT –VIII: SOCIO – POLITICAL THEORIES

Society and State: The State and Individual – **The Ethical basis of State:** General Will – The Ethical functions of the State – **Theories of the State:** Totalitarianism, Democracy, Individualism, Anarchism, Collectivism, Socialism and Communism and Sarvodaya – **Indian Ethics:** The four Supreme Ends of life - Ethics of Ahimsa - Rights and Duties: Nature of Rights and the Rights of Man – Determination of Duties – Indian Classification of Duties: Duty and Moral obligation Education for Citizenship.

UNIT –IX: SOCIAL IDENTITY

The Self: The concept of self, components of self, Self- focusing – Self-monitoring – Self-efficacy – Gender identity.

UNIT - X: INTERNATIONALISATION OF EDUCATION

The Meaning of Liberalization, Privatization and Globalization (LPG) – Impact of LPG on Education – Internationalisation of Education – Exporting Education –The Issues of Globalisation – Establish of foreign Universities – Virtual University – Assessment and Accreditation of Universities.

SUGGESTED ACTIVITIES

1. Study the Social Customs prevailing in the local community and submit a report.
2. Study the religious diversities existing in the community and describe the root causes for such diversities.
3. Education and vertical / Horizontal Social Mobility – Conduct a Survey in a village/ward and prepare a report
4. Study the Social Stratification in a Village/ ward and prepare a report on it.
5. Study the Essential skills & Life skills in education and prepare a report on it.

SUGGESTED READINGS:

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COURSE CODE: FPEET**ESSENTIALS OF TEACHING AND LEARNING****OBJECTIVES:**

At the end of the course, the student-teachers will be able to

- acquire the knowledge of the concept, terms and procedures in teaching and learning;
- understand the principles and maxims of teaching;
- understand the tasks of teaching;
- acquire the knowledge on various theories of teaching;
- apply various models of teaching;
- comprehend the instructional system;
- apply the knowledge of innovative methods and devices of teaching;
- develop skills of using different techniques of teaching;
- apply innovative teaching strategies; and
- acquire skills on effective teaching.

UNIT-I: CONCEPTS OF TEACHING-LEARNING

Concept, Definition, Nature, Levels and Phases of Teaching and Learning- Teaching as an Art, Teaching as a Science and Teaching as a Profession- Variables in Teaching - Relationship between Teaching and Learning- Modes of Learning: Enactive, Iconic and Symbolic modes of Learning - Types of Learning: Factual, Association, Conceptual, Procedural, Generalization, Principles and Rules, Attitudes, Values and Skill Learning – Domains of Learning: Cognitive, Affective and Conative Learning.

UNIT-II: PRINCIPLES AND MAXIMS OF TEACHING

General principles of teaching: Purposeful Based, Paedo -Centered, Experience- Based, Activity-Centered and Evaluation Based Teaching - Psychological principles of teaching - Maxims of Teaching.

UNIT-III: TASKS OF TEACHING

Meaning - Definition -Variables - Phases - Operation of Teaching Task: Pre active phase, Inter-active phase and Post-active phase- Levels of Teaching: Memory, Understanding and Reflective Levels.

UNIT-IV: THEORIES OF TEACHING

Definition, Meaning, Nature, Need and Significance and Scope- Types of Teaching Theories: (1) Formal Theory of Teaching- Communication Theory, Moulding Theory and Mutual Inquiry (2) Descriptive Theory of Teaching: Gagne's Hierarchical Theory, Atkinson's Optimal Learning Theory and Bruner's cognitive Theory.

UNIT-V: MODELS OF TEACHING

Concept and Definition- Fundamental elements of teaching models -Types of Teaching Models: Important Models under each type (1) Information Processing Models-Bruner's Concept Model (2) Social Interaction Models- Glaser's Classroom Meeting Model (3) Personal Development Models- Roger's Non directive Model (4) Behavior Modification Models-The Training Model.

UNIT-VI: INSTRUCTIONAL SYSTEM

System Approach: Concept, Meaning, Types and Steps in System Approach- Input-Process- Output Model of a system- Feedback based Model of system - Steps involved in the development of Instructional System- Role of Teacher in Instructional System.

UNIT-VII: METHODS AND DEVICES OF TEACHING

The Concept of Teaching method-Categorization of Teaching Method: Lecture Method, Discussion Method, Team Teaching, Symposium, Panel Discussion, Seminar, Conference, Supervised Study and Tutorial Method. The Concept of Teaching Devices- Categorization

of Teaching devices: Narration, Exposition, Description, Explanation, Questioning, Review and Assignment.

UNIT-VIII: THE TECHNIQUES OF TEACHING

The Concept of Technique-Categorization of Teaching Techniques-Teacher Dominant Techniques: Telling, Indoctrination, Guidance and Counselling, Drill and Demonstration-Student Dominant Techniques: Debate, Creative writing, Library work, Project work, Field Trip, Problem Solving Technique, Brain Storming, Colloquium, Self-Learning, Meaningful Learning, Programmed Instruction, Keller Plan and Computer Assisted Instruction (CAI) -Group activities involving Team Work: Group Interactive sessions, Co-operative Learning, Constructivist Learning, Group Investigation and Group Project.

UNIT-IX: TEACHING STRATEGIES

Concept of Instructional Strategy- Evolving Instructional Strategy: Selection of Content to be taught, Description of Ability, Dimensions of Educational Goals, Preparation of a Table of Specification, Prioritization of Goals, Specification of Instructional Objectives in Behavioral terms, Deciding time duration, Selection of the appropriate method and Determining the most appropriate strategy. Innovative Teaching strategies: Block Teaching, e-tutoring, Interactive Video, Print Media, Electronic Media, Tele Conference, Video Conference, Interactive Video, Cybernetics and Virtual Classroom.

UNIT- X: EFFECTIVE TEACHING

Effective Teaching: Concept and Meaning- Teaching competence and skills: Meaning and Nature – Classification of Teaching Skills: Core Teaching Skill, Specific Teaching Skills and Target Group Specific Skills -Dimensions of Effective Teaching: Competency Areas, Commitment Areas and Performance Areas - Factors contributing Effective Teaching.

SUGGESTED ACTIVITIES:

1. Conduct a group discussion on innovative teaching strategies.
2. Prepare a detailed report on different roles of Teacher in Instructional system.
3. Conduct a Brain storming session on issues and trends in contemporary Indian Education.

4. Prepare a Programmed Learning Material for any one of the topic.
5. Prepare a list of study habits prevailing among students of particular class through interaction of students.

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COURSE CODE: FCPTA**Pedagogy of Tamil (Part-1)****தமிழ் கற்பிக்கும் முறைகள் (பகுதி-1)****நோக்கங்கள்:**

பாடப்பொருளைக் கற்றபின்பு மாணவ-ஆசிரியர்

- இடைநிலை,மேனிலைவகுப்பு தமிழ்ப் பாடங்களின் கற்றல் நோக்கங்களை வெளிப்படுத்துவர்
- தமிழ் கற்றல்-கற்பித்தலின் நோக்கங்களை எடுத்துரைப்பர்
- பாடம் கற்பிப்புத் திட்டத்தைத் தயாரிக்க உரிய அணுகுமுறைகளைப் பின்பற்றுவர்
- கலைத்திட்டத்தில் மொழியின் இடம் பற்றி அறிந்து கொள்வர்
- துணைக்கருவிகளின் பயன்பாட்டினை மாணவர்களுக்கு உணர்த்துவர்
- மொழி, இலக்கியம் கற்பித்தலுக்கான பல்வேறு முறைகளைப் பயன்படுத்தல்
- மாணவர்களிடையே மொழித்திறன் வளர்க்கும் முறைகளை மேற்கொள்வர்
- கற்றலில் மாணவர்களின் தேவை அறிந்து உணர்த்துவர்
- வகுப்பறைத் திறன்கள் மேம்படுத்துதல் பற்றிஎடுத்துரைப்பர் மற்றும்
- இடைநிலைமேனிலைத் தமிழ்ப் பாடம் கற்பித்தலில் பொருத்தமான வளர்வறி,தொகுநிலை வினாக்களைத் தயாரிப்பர் .

அலகு - I : பாடப்பொருள்

நிலை : 1 உயர்தொடக்கப் பள்ளி பாடநூல்களைப் பகுத்தாய்தல் (6-8 ஆம் வகுப்பு: தமிழ்,ஆங்கிலம்,கணிதம்,அறிவியல் மற்றும் சமூகஅறிவியல்) (இளங்கலைமற்றும் முதுகலைமாணவர்கள்)

நிலை :2 உயர் நிலைப்பள்ளிமற்றும் மேல்நிலைப்பள்ளி பாடநூல்களைப் பகுத்தாய்தல் (9-10ஆம் வகுப்புதமிழ்ப்பாடநூல்கள் -இளங்கலைமாணவர்கள்) மற்றும் (11-12ஆம் வகுப்புதமிழ்ப்பாடநூல்கள் -முதுகலைமாணவர்கள்)

(தமிழகஅரசால் பரிந்துரைக்கப்பட்டநடைமுறையில் உள்ள பாடத்திட்டம்)

அலகு- II :தாய்மொழிக் கற்பித்தலின் நோக்கங்களும் குறிக்கோள்களும்

தாய்மொழிகற்பித்தலின் நோக்கங்களும் குறிக்கோள்களும் - தமிழ் மொழிகற்பித்தலின் பொதுநோக்கங்களும் சிறப்புநோக்கங்களும் - கற்றலின் விளைவுகளுக்கேற்ப நோக்கங்களை வரையறுத்தல் - தமிழ் மொழியின் தனித்தன்மை: வெளியிடும் கருவி - செயலாற்றல் - அறிவுகளுக்கிடையேயில் - அடிப்படைமொழித்திறன் வளர்ச்சி - இலக்கிய இன்பம் - படைப்பாற்றல் - கற்பனையாற்றல் - சமூகப் பண்பாட்டுவளர்ச்சி - சமூகமரபுகளைப் பேணுதல் - வாழ்க்கைத் திறன்களைப் பெறுதல் - விழுமப் பதிவு. புளுமின் கற்பித்தல் கோட்பாடுகள் - அறிவுக்களம் ,உணர்வுக்களம், செயற்களம்.

அலகு-III :நுண்ணிலைக் கற்பித்தலும்,பாடம் கற்பிப்புத்திட்டமும்

நுண்ணிலைக் கற்பித்தல்: பொருள் - விளக்கம் - படிநிலைகள்,சுழற்சி- 1. தொடங்குதல் திறன், 2. விளக்குதல் திறன், 3.வினாக்கேட்டல் திறன், 4. பல்வகைத் தூண்டல்களைப் பயன்படுத்தும் திறன், 5. வலுவூட்டிகளைப் பயன்படுத்தும் திறன் 6. முடிக்கும் திறன் 7. கரும்பலகைப் பயன்பாடு - இணைப்புப்பாடம் - உற்றுநோக்கல் - பாடங்கற்பிப்புத் திட்டம்: பாடம் கற்பித்தல் திட்டத் தேவை. கற்பித்தல் திட்டத்தில் காணப்படவேண்டிய கூறுகள் - அலகுத்திட்டம் - பாடம் கற்பிப்புத்திட்டம் தயாரித்தல்.

அலகு - IV: கலைத்திட்டத்தைஒருங்கமைத்தலும் ஒழுங்குபடுத்தலும்

கலைத்திட்டம்:பொருள் விளக்கம் - ஆக்கக்கூறுகள் -கலைத்திட்டத்தில் தாய்மொழிபெறும் இடம்- கலைத்திட்டம் உருவாக்குதலில் சிலஅடிப்படைக்கோட்பாடுகள் - செங்குத்துமற்றும் கிடைமட்டகலைத்திட்டஒருங்கமைவு-கலைத்திட்டவடிவமைப்பு-செயல்முறைகள் - தேவை- பகுப்பாய்வு-குறிக்கோள்களைநிறைவேற்றுதல் - பாடப்பொருளைத் தெரிவுசெய்தல் - கற்றல் அனுபவங்களைத்தெரிவுசெய்தல் - பாடப்பொருள் மற்றும் கற்றல் அனுபவங்களைஒழுங்குப்படுத்திஒருங்கிணைத்தல் - பாடநூல் மதிப்பீட்டுஉத்திகள்.

அலகு -V: கற்றல் கற்பித்தலில் துணைக்கருவிகளின் பயன்பாடு

கற்றல் கற்பித்தலில்துணைக்கருவிகளின் பயன்கள் -முறைகள்-எட்கர்டேல் அனுபவக்கூம்பு- பிம்பம் வீழ்த்தும் கருவி-தலைமேல்பிம்பம் படவீழ்த்தி ,நழுவங்கள் ,திரவபடிகைக் காட்சிவீழ்த்தி(LCD) - காட்சி-கேள்விகருவிகள்: வானொலி, ஒலிப்பதிவுநாடா, ஒளிப்பதிவுநாடா, தொலைக்காட்சி, மொழிப்பயிற்றாய்வுக்கூடம் - கணினி- பவர்பாயிண்ட்நழுவங்கள் (PPT) -மின்கற்றல் - இணையதளம் - செயற்கைக் கோள் - விண்ணரங்கம் - காணொலி - பிம்பம் வீழ்த்தாகருவிகள்: வரைபடம், உருவப்படம்,மின்னட்டை, சுழலட்டை, மாதிரிகள், வாசிப்புவேகத்தை அளவிடல்

(லாசிஸ்டாஸ்கோப்), தகவல் பலகை, காந்தப் பலகை, மொழிப்பயிற்றாய்வுக் கூடம் - இலக்கியமன்றம்.

அலகு - VI : தமிழ்க் கற்பித்தலின் உத்திகள்:

ஆசிரியர் மையக்கற்பித்தல்: சொற்பொழிவு- உரையாடல்-வினாவிடை-நெட்டுரு-தடைவிடை- பங்கேற்புமுறைகள் - பகுத்துக் கற்பித்தல்- தொகுத்துக்கற்பித்தல் - விதிவருமுறை- விதிவிளக்கமுறை. - மாணவர் மையக்கற்பித்தல்: தனிப்பயிற்சி, மேற்பார்வை, ஒப்படைப்பு, தானேகண்டறியும் முறை (ஹெருஸ்டிக்), விளையாட்டு, நடிப்பு, செயல்வழிக்கற்றல் முறை, குழுக்கற்றல், தானேகற்றல், படைப்பாற்றல் கல்வி.

அலகு -VII : கற்றல்- கற்பித்தலில் ஏற்படும் இடர்பாடுகள்

தமிழ்மொழிகற்பித்தலில் உள்ள இடர்பாடுகள் - மொழித்திறன்களில் (கேட்டல்,பேசுதல்,படித்தல்,எழுதுதல்) ஏற்படும் பிழைகளும் பிழைகளைதலும் -இயற்கைச் சூழல் - காலஅளவு-எழுத்து,சொல்,தொடர்,வாக்கியம்,நிறுத்தற்குறியீடுகள் -கற்றலில் ஏற்படும் சிக்கல்களும் தீர்வுகளும்,பாலினபிரச்சனைகள்,தனிமனிதவேறுபாடு,தேர்வும் மதிப்பீடும் - கற்றல் கற்பித்தலின் போக்கு-ஆசிரியர் மாணவரின் வகுப்பறைநடத்தை.

அலகு - VIII: மாணாக்கரின் பல்வகைத் தேவைகள்

தமிழ்ப் பாடம் கற்பித்தலில் மாணவர்களின் ஆர்வம்- மனப்பான்மை-செய்யுள்,உரைநடை, இலக்கணம்,துணைப்பாடம்,கட்டுரைமுதலியனகற்பித்தலில் மாணவர்களுக்கானதேவைகள் - தமிழில் மீத்திறன் மிக்க,சராசரிமற்றும் மெதுவாகக் கற்கும் மாணவர்கள் -குறையறி,குறைதீர் மற்றும் முன்னேற்றப் பயிற்சி - நுண்ணறிவுச் சாராதிறன்கள்: பொருள்- விளக்கம் - ஆர்வம்: பொருள்,வகைப்பாடு,வளமூலம் - மனப்பான்மை: பொருள் மற்றும் முக்கியத்துவம் - விழுமங்கள்: பொருள் மற்றும் முக்கியத்துவம்,விழுமங்களின் வளமூலங்கள்,நிறுவனங்கள் மற்றும் ஆசிரியர்கள் விழுமங்களின் வழியாகஉதாரணங்களுடன் பல்வேறுபாடஇணைச்செயல்பாடுகள் அமைத்தல்.

அலகு - IX: வகுப்பறை மேலாண்மை

வகுப்பறை மேலாண்மையின்- பொருள்- விளக்கம் - வகுப்பறை ஒருங்கமைத்தல் - ஆக்கக்கூறுகள் - மேலாண்மைக் கற்பித்தலின் சூழல் - முற்போக்கான வகுப்பறைச்சூழல் - வகுப்பறையில் தாக்கத்தை ஏற்படுத்தக்கூடிய சூழல்,நன்மை,தீமைகள் - படைப்பாற்றல் மிக்கநல்லியல்பானசூழல்கள் - கற்பித்தல் திறன்களின் உத்திகள் - வகுப்பறையில் மாணாக்கரின் கட்டுப்பாடும் செயல்பாடும் -விதிமுறைகள் - தகவல்களைத்திரட்டல் -

படைப்பாற்றல் தன்மைகள் - மேம்படுத்தல் - தழுவல் - ஈடுகட்டுதல் - மிகுந்துக்காணல் - குறைத்துக்காணல் - மீளவைத்தல், இணைத்தல் - படைப்பாற்றல் வடிவங்கள் - தலைப்புதருதல் ,குறிப்புகள் தருதல், வடிவம், வகைமாற்றுதல், ஈற்றடிதருதல் - கதை, கவிதை, வானொலி உரைச்சித்திரம் - கவிதையைக் காட்சிப்படுத்தல் போன்றன.

அலகு - X: கற்றல் கற்பித்தலில் மதிப்பீடு

தேர்வு: பொருள்-முக்கியத்துவம் அகவயம் ,புறவயம் - அடைவுத் தேர்வு -மதிப்பீடு: முக்கியத்துவம்- தொடர் மற்றும் முழுமையான மதிப்பீடு(ஊஊநு),வளர்வறி - தொகுநிலை - நிலைக்கேற்ற வினாக்கள் - வளர்வறி, தொகுநிலை வினாவகைகள் - வினாப்பண்புகள். வகுப்பறை வினாக்கள்: வினாத்தாள் தயாரித்தல் - வினாத்தாள் திட்டவரைவு - விடைத்தாள் அளவிடுதல் - வினாப் பகுப்பாய்வு முறைகள். புள்ளியல் அளவைகள்: கூட்டுச் சராசரி, இடைநிலை, முகடு, வீச்சு,திட்டவிலக்கம்,சராசரிவிலக்கம், கால்மானவிலக்கம் ,தரஒட்டுறவுக்கெழு, வரைக்கட்டம்.

பரிந்துரைக்கப்பட்ட செயல்முறைகள் :

1. 6ஆம் வகுப்புமுதல் 10ஆம் வகுப்புவரைஉள்ளபாடம் ஒன்றிற்குஅலகுத்திட்டம் தயார் செய்துசமர்ப்பிக்க.
2. பாடப்பொருளுக்குஏற்றகலைநிகழ்ச்சிகளுக்கானகுறிப்புகள் தயாரிக்க. (இலக்கியமன்றம்,ஓரங்கநாடகம்,பட்டிமன்றம்,நாடகம் முதலியன).
3. உலகஅளவில் செம்மொழியின் தாக்கம் குறித்து இணையத்தளஉதவியுடன் ஓர் அறிக்கைதயாரிக்க.
4. கற்றலில் இலக்கணபிழைகளின் குறைஅறிந்துகுறைதீர் பயிற்சிஅளிக்கஒரு அறிக்கைத் தயாரிக்க.
5. தமிழ் பாடநூலின் வளர்நிலைமற்றும் தொகுநிலைமதிப்பீடுகுறித்துஓர் அறிக்கைசமர்ப்பிக்க.

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COURSE CODE: FCPEN**PEDAGOGY OF ENGLISH – PART I****OBJECTIVES:**

At the end of the course, the student-teachers will be able to

- sensitise the contents and structures of English textbook of Tamil Nadu Govt. from the standards of upper primary (VI to VIII), secondary (IX & X) and higher secondary (XI & XII) level;
- realize the aims and objectives of teaching English;
- understand the importance of organising and integrating various essential components in constructing a standardized curriculum;
- acquaint with the skills of teaching at micro and macro levels;
- engage themselves in the preparation of teaching resources and materials with the assistance of ICT;
- get familiarized with the various strategies of teaching English;
- comprehend the significance and the aspects of classroom management;
- identify and resolve the issues and problems in teaching-learning of English;
- trace out the needs of diversified students in particular, slow learners, gifted and differently abled children; and
- obtain knowledge about the evaluation process, types of tests and the basics of Educational statistics.

UNIT – I: SENSITISING THE SCHOOL CURRICULUM

- a) Analysis of school text books at upper primary level (VI to VIII Standards) prescribed by Tamil Nadu Government time to time.
- b) Analysis of English text books of secondary (IX & X Standards) / higher secondary (XI & XII Standards) levels prescribed by Tamil Nadu Government from time to time.

UNIT – II: AIMS AND OBJECTIVES OF TEACHING ENGLISH

Bloom's Taxonomy (Revised) of Educational Objectives: Cognitive, Affective and Psychomotor domains - General and Specific instructional objectives - Place of English at different levels of school education (Upper Primary, Secondary and Higher Secondary levels) - Quality of English teaching: Pre-class, in-class and after-class - Place of English in three language formula and its objectives - Teaching the communication skills: Listening, speaking, reading and writing - Teaching English as a skill subject rather than a knowledge subject - Learning the Mother Tongue and Second Language (MT & SL).

UNIT – III: TEACHING SKILLS AND ORGANISATION OF PRACTISING TEACHING PROGRAMME

Micro teaching: Meaning, definition and principles - Micro teaching cycle - Micro teaching skills: Introducing the lesson, Explanation, Using the blackboard, Reinforcement, Stimulus variation and Questioning - Link lesson, Year plan Unit plan and Lesson plan: Prose, poetry, grammar and composition - Lesson plan format: GIOs and SIOs, motivation, presentation, application, recapitulation and assignment - Observation and its types - Demonstration lesson: Teacher educator, guide teacher, peer group feedback – Organization of practice: Role of supervisor, principal and academic staff in conduct of practicing teaching programme – General teaching competency scale, Self-Appraisal scale, Guidelines for Peer observation and framework of Evaluation.

UNIT – IV: INTEGRATION AND ORGANISATION OF CURRICULUM

Curriculum: meaning, essential components and principles of curriculum construction - Vertical and Horizontal organisation of curriculum - Process of curriculum organization: analysis of needs, objectives, criteria for selection of contents and selection of learning experiences, organization and integration of content and learning experiences and evaluation techniques.

UNIT–V: DEVELOPMENT OF TEACHING AND LEARNING MATERIALS

Edgar Dale's cone of experiences - Projected Aids: interactive board, LCD projector, Overhead projector, Tape recorder, Radio and Television - Non-projected aids: flash cards, pictures, charts, bulletin board, models, blackboard sketches - Programmed learning: Linear and Branched learning - Language laboratory: characteristics, its role, advantages and utilization - Computer Assisted Language (CAI) learning modules - Power point presentation (Ppt.) and Mind-map for classroom teaching-learning - Identifying websites - Multimedia and its functions of enriching language teaching learning process.

UNIT – VI: STRATEGIES OF TEACHING ENGLISH

Definition: method and approach and its characteristics - Types of methods: Activity Based Learning (ABL), Active Learning method (ALM), Direct method, Grammar-translation, Audio-lingual, Communicative Language Teaching (CLT), Task-based language learning - Structural approach - Types of Structure - Selection and gradation of structures - Situational approach, oral approach, communicative approach, humanistic approach and principled eclectic approach in teaching of English - Listening Skill: listening for perception and comprehension - The three phases of listening - Listening materials - Listening to specific information and general understanding - Listening activities - Speaking Skill: techniques - tasks for developing speaking skill - Barriers for effective communication - Testing speaking - Reading Skill: aims of teaching reading - Process involved in reading - Types of reading - Methods of teaching reading to beginners - Reading for perception and for comprehension - Strategies to develop reading - Testing reading - Writing Skill: sub skills in writing - Characteristics of good handwriting - Strategies for developing good handwriting.

UNIT – VII: ISSUES AND PROBLEMS IN TEACHING AND LEARNING

Nature of language: linguistic principles and their pedagogical implications - Language and Society: with special reference to gender, identity, power and class (society) - Role of English language in the Indian context: English as a colonial language, English in post-

colonial times, position of English as second language in India, role of mother tongue and second language (MT & SL), English as a link language in global context, challenges of teaching and learning English.

UNIT – VIII: DIVERSIFIED NEEDS OF LEARNERS

Interest and attitude of learners towards learning English - Difficulties in learning of English: slow learners, gifted learners and differently abled children - Remedial measures for slow learners, enrichment programmes for gifted learners and differently abled children - Non-cognitive Abilities: meaning and nature - Interest, Attitude, Values: meanings, classifications and sources - Source of values through personal and by teacher, organization and management of various co-curricular activities.

UNIT – XI: CLASSROOM MANAGEMENT

Classroom Management: concept and components - Classroom Organization - Classroom learning atmosphere - Positive classroom climate - Factors assisting effective learning atmosphere - Advantages of positive learning climate - Creating ideal classroom atmosphere - Technical teaching skills - Prevention and control of students - Classroom activities - classroom records and rules.

UNIT – X: EVALUATION OF TEACHING – LEARNING PROCESS

Evaluation: concept and characteristics - Techniques of evaluation: oral and written, self-evaluation, peer evaluation, group evaluation - Characteristics and qualities of constructing a good English test - Item analysis and difficulty level index of items - Preparation of Blue print based on components with equal weightage - Types of tests: prognostic and diagnostic tests, teacher-made test, achievement test, standardized test and competitive examinations - Central tendency: mean, median, mode and range - Quartile and Standard deviations - Rank Order Correlation Coefficient and Karl Pearson's product moment method - Graphical representation of data: bar diagram, histogram, pie chart, frequency polygon, frequency curve and Ogive curve - Progress and assessment of development of language skills - Comprehensive and Continuous Evaluation (CCE): formative and summative evaluations - Typology of questions: activities and tasks reflecting, problem solving,

creative and critical thinking and enhancing imagination - Preparation of tests for testing different skills of language: listening, speaking, reading, writing, study skills and reference skills - Preparation of Scholastic Achievement Test (SAT) giving weightages to objectives and learning experiences.

SUGGESTED ACTIVITIES:

1. Write an essay on various contemporary social and educational emerging issues and problems in detail.
2. Enumerate ten activities (Five for listening and Five for speaking) from the text books of classes VI to VIII.
3. Suggest your own activities using supplementary materials.
4. Analyze the tasks given at the end of anyone unit in the textbook and check their relevance to cognitive, affective and psycho motor domains.
5. Select a topic of your choice and select 10 vocabulary items to teach in the relevant context and give reasons for your selection.
6. Prepare a question paper for classes VI to VIII to asses all the aspects of language learning.
7. Preparation of lesson plans and episodes for micro teaching skills as well demonstration and observation process.
8. Analyse the text books of English of Tamil Nadu Govt. in terms of organisation and integration of essential components, skills and needs and requirements with special reference to learners.
9. Preparation of remedial material for slow learners, gifted and differently abled children for anyone of the units.
10. Prepare digital lesson plans and Power point presentations for classroom teaching-learning process.

SUGGESTED READINGS:

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- Rao, P. (2005). *Method of teaching English*. Hyderabad: Neelkamal Publications.
- Richards, J.C. and Rogers. T. (1998). *Approaches and Methods to Language Teaching*. London: CUP
- Siddiqui, M.H. (2009). *Techniques of Classroom Teaching*. New Delhi: APH Publishing House.
- Sharma, R. A. (2008). *Technological foundation of Education*. Meerut: R. Lall Books Depot.
- Sharma, R. N. (2008). *Principles and Techniques of Education*. Delhi: Surjeet Publications.
- Sharma, R. N. (2008). *Contemporary Teaching of English*. New Delhi: Surjeet Publications.

COURSE CODE : FCPMA**PEDAGOGY OF MATHEMATICS - PART I****OBJECTIVES:**

At the end of the course, the student-teachers will be able to

- get sensitised the school content in Mathematics;
- comprehend the aims and objectives of teaching Mathematics;
- acquire various teaching skills and develop competence in structuring lesson plans;
- integration and organisation of Mathematics curriculum;
- identify the various learning resources;
- explore the methods of teaching Mathematics;
- understand the issues in teaching and learning Mathematics;
- understand the diversify needs of the students;
- acquire classroom management skills; and
- construct appropriate assessment tools for evaluation.

UNIT- I: SENSITISING THE SCHOOL CURRICULUM

Analysis of the Content course of Standard VI to VIII (Tamil, English, Mathematics, Science and Social science) Text Books prescribed by Government of Tamil Nadu, and content course of standard IX - X (for UG), XI – XII (for PG) Mathematics Text Books Prescribed by Government of Tamil Nadu.

UNIT - II: AIMS AND OBJECTIVES OF TEACHING MATHEMATICS

Need and significance of teaching Mathematics-Aims: Practical, Social, Disciplinary and Cultural aims - Instructional Objectives: General Instructional Objectives (G.I.Os) and Specific Instructional Objectives (S.I.Os) relating to the Cognitive, Affective and Psychomotor Domain based on Bloom's Taxonomy of Educational Objectives – Revised Bloom's Taxonomy.

UNIT-III: TEACHING SKILLS AND ORGANIZATION OF PRACTICE - TEACHING PROGRAMME

Micro Teaching: Origin, Need, Phases, Definition, Characteristics, Process, Cycle, A Plan of action, Advantage of Micro teaching and its Uses-Skills : Explanation, Questioning , Blackboard usage, Reinforcement, Stimulus variation, Introduction and Closure -Link lesson - Unit Plan - Year Plan - Lesson Plan: Need and importance, Characteristics of good Lesson Plan, Herbartian steps, Format of a typical Lesson plan -G.I.Os and S.I.Os, Teaching Learning Materials, Motivation, Presentation, Application, Recapitulation and Assignment –Uses of Lesson plan - Organisation of Practice – Teaching Programme for B.Ed., Student-teachers - Role of the Supervisor, Principal and the Academic Staff in the Conduct of Practice - Teaching Programme - General Teaching Competence Scale, Self-Appraisal Scale, Guidelines for Peer Observation and Framework of Evaluation

UNIT – IV: INTEGRATION AND ORGANIZATION OF COMPUTER SCIENCE CURRICULUM

Meaning of Curriculum, Components of curriculum - Principles of curriculum construction - Vertical and Horizontal organisation of curriculum - Process of curriculum organisation: Analysis of needs, Objectives, Formulation of objectives, Selection of content, Selection of learning experience, Organisation and integration of content and learning experience and Evaluation Techniques.

UNIT V: DEVELOPMENT OF TEACHING LEARNING MATERIALS

Edgar dale's cone of experience -Need and importance of Audio Visual aids – Types of Audio Visual Aids - Projected aids: Over Head Projector, LCD projector, Epidiascope and Slide Projector - Non Projected Aids: Charts, Flash Cards, Print Materials, Regalia and Models. Types of Board: Bulletin Board, Magnetic Board, Flannel Board, Interactive Board and Smart Board - Graphic Aids - Activity Aids- Mathematics Club -Mathematics Lab and Mathematics Library.

UNIT-VI: STRATEGIES OF TEACHING MATHEMATICS

Methods of Teaching: Analytic, Synthetic, Inductive, Deductive, Heuristic, Problem solving, Project and Laboratory - Activity Based Learning (ABL) - Active Learning Method (ALM) - TIGER Method -Techniques of Teaching Mathematics: Self Study, Drill work ,Supervised Study, Assignment, Oral Work , Group discussion and Buzz Session. Interactive Teaching: Meaning and Types- Interaction Patterns Generated by Teacher Centred Approaches to Teaching.

UNIT –VII: ISSUES IN TEACHING AND LEARNING

Gender issues - Individual differences, Language problem in learning - Nature of subjects, Examination and grading system - Teaching and Learning styles - Classroom behaviour of Teacher and Learner - Difficulties in Learning Mathematics: Dyscalculia - Mathematics Phobia - Dysgraphia - Mathematics Anxiety - Difficulties in handling mathematical instrument - Causes, Problems and its remedial measures .

UNIT VIII: DIVERSIFIED NEEDS OF STUDENTS

Need for Learner Centred Approach; Historical Perspective; Attributes of learner Centred Classroom; Application of Learner Centred Approach; Integration of Learner Centred Approach with the Main Stream Education System. Slow learners and gifted learners in mathematics - Remedial and Enrichment programmes - Non - Cognitive Abilities: Meaning and Nature - Interest: Meaning, Classification and sources - Attitude: Meaning and Importance - Interest and Attitude of students towards learning Mathematics -Values: Meaning and Importance - Source of Values through Personal examples set by Teachers and Organisation and Management of a variety of Co-curricular activities.

UNIT IX: CLASSROOM MANAGEMENT

Concept of Class Room Management - Class Room Organisation - Components of Class Room Management - Class Room Learning atmosphere - Positive Classroom climate -

Factors supporting a Effective Learning atmosphere - Advantages of Positive Learning climate - Creative Ideal classroom atmospheres - Classroom Activities -Classroom Records and Rules.

UNIT - X: EVALUATION OF TEACHING – LEARNING

Different types of tests in Mathematics: Achievement, Diagnostic, Prognostic-Criterion and Norm referenced evaluation - Construction of Achievement Test - Continuous and Comprehensive Evaluation - Formative and Summative Evaluation- Statistical Measures: Mean, Median, Mode, Range, Mean Deviation, Standard Deviation, Quartile deviation, Rank Order Correlation Method and Karl Pearson's product moment method - Graphical representation of data: Bar diagram, Histogram, Pie Chart, Frequency curve, Frequency polygan and Ogive curve.

SUGGESTED ACTIVITIES

1. Collect and present the History and Contributions of any one Mathematician.
2. Discussion on various learning resources in Mathematics.
3. Preparation of Teaching Learning Material for any one topic in Mathematics.
4. Preparation of Power Point Presentation for any one topic in Mathematics.
5. Identify and practice suitable methods of teaching to teach a Mathematical Concept.
6. Conduct a Mathematical Quiz.
7. Organise a Mathematics Club.

SUGGESTED READINGS

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Mangal, S.K., & Mangal, S. (2005). Essentials of educational technology and management. Meerut: Loyal Book Depot.

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Pratap, N. (2008). Teaching of mathematics. Meerut: R.Lall Books Depot.

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Sharan, R., & Sharma, M. (2006). Teaching of Mathematics. New Delhi: APH Publishing Corporation.

Sidhu, K.S. (2006). Teaching of mathematics. New Delhi: Sterling Publishers.

Mathematics Books for standard VI - XII, Tamil Nadu Text Book Corporation,
Government of Tamil Nadu.

COURSE CODE: FCPCS**PEDAGOGY OF COMPUTER SCIENCE - PART I****OBJECTIVES**

At the end of the course, the student-teachers will be able to

- get sensitized the school content in Computer Science;
- comprehend the aims and objectives of teaching Computer Science ;
- acquire various teaching skills and develop competence in structuring lesson plans;
- integration and organization of Computer Science curriculum;
- identify the various learning resources;
- explore the methods of teaching Computer Science;
- understand the issues in teaching and learning Computer Science;
- understand the diversify needs of the students;
- acquire classroom management; and
- construct appropriate assessment tools for evaluation.

UNIT- I: SENSITISING THE SCHOOL CURRICULUM

Analysis of the Content course of Standard VI to VIII (Tamil, English, Mathematics, Science and Social science) Text Books prescribed by Government of Tamil Nadu, and content course of standard IX - X (for UG) , XI – XII (for PG) Computer Science Text Books Prescribed by Government of Tamil Nadu.

UNIT - II: AIMS AND OBJECTIVES OF TEACHING COMPUTER SCIENCE

Need and significance of teaching Mathematics-Aims: Practical, Social, Disciplinary and Cultural- Instructional Objectives: General Instructional Objectives (G.I.Os) and Specific Instructional Objectives(S.I.Os) relating to the Cognitive, Affective and Psychomotor Domain based on Bloom's Taxonomy of Educational Objectives – Revised Bloom's Taxonomy.

UNIT-III: TEACHING SKILLS AND ORGANIZATION OF PRACTICE - TEACHING PROGRAMME

Micro teaching: Origin, Need, Phases, Definition, Characteristics, Process, Cycle, A Plan of action, Advantage of Micro teaching and its Uses-Skills : Explanation, Questioning , Blackboard usage, Reinforcement, Stimulus variation, Introduction - Unit Plan - Year Plan - Lesson Plan: Need and importance ,Characteristics of good Lesson Plan, Herbartian steps, Format of a typical Lesson plan - G.I.Os and S.I.Os, Teaching Learning Materials, Motivation, Presentation, Application, Recapitulation and Assignment – Uses of Lesson plan - Organisation of Practice – Teaching Programme for B.Ed., Student-teachers. Role of the Supervisor; Role of the Principal and the Academic Staff in the Conduct of Practice-teaching Programme. General Teaching Competence Scale, Self-Appraisal Scale, Guidelines for Peer Observation and Framework of Evaluation

UNIT – IV: INTEGRATION AND ORGANIZATION OF MATHEMATICS CURRICULUM

Meaning of Curriculum, Components of Curriculum – Principles of curriculum construction – Vertical and Horizontal Organisation of Curriculum – Process of Curriculum organisation: Analysis of needs, Objectives, Formulation of Objectives, Selection of Content, selection of learning experience, organisation and integration of content and learning experience and Evaluation techniques.

UNIT V: DEVELOPMENT OF TEACHING LEARNING MATERIALS

Edgar dale’s cone of experience - projected aids: OHP, slides, LCD projector, Audio Conference, Video Conference, Epidiascope and Slide Projector - Non Projected Aids: Charts, Flash Cards, Printed Materials, Bulletin Board, Magnetic Board and Flannel Board. Need and important of Audio Visual aids – Types of Audio Visual Aids – Graphic Aids, Activity Aids.

UNIT-VI: STRATEGIES OF TEACHING COMPUTER SCIENCE

Methods of Teaching: Analytic, Synthetic, Inductive, Deductive, Heuristic, Problem solving, Project and Laboratory - Activity Based Learning (ABL) –Active Learning Method (ALM) - Techniques of Teaching Computer Science: Self Study, Drill work ,Supervised Study, Assignment, Oral Work , Group discussion and Buzz Session - Online courses-Social Networks - Blogs - Cloud computing – Android - Windows - Cyberspace Threats and Solutions-Spyware protection-Microsoft outlook 2013- Smart Classroom – E-Learning –Surfing – Skype.

UNIT –VII: ISSUES IN TEACHING AND LEARNING

Gender issues – Individual differences, Language problem in learning – Nature of subjects, Examination and grading system – Teaching and Learning styles – Classroom behaviour of Teacher and Learner-Practical difficulties: handling keypad and mouse-Drawbacks of internet – Technophobia – Difficulties in Hardware and Software – Self –Learning – Difficulties in writing programmes.

UNIT VIII: DIVERSIFIED NEEDS OF STUDENTS

Need for Learner Centred Approach; Historical Perspective; Attributes of learner Centred Classroom; Application of Learner Centred Approach; Integration of Learner Centred Approach with the Main Stream Education System – Slow learners and gifted learners in Computer Science – Remedial and Enrichment programmes-Blended Learning-Smart Classroom - Non – Cognitive Abilities: Meaning and Nature - Interest: Meaning, Classification and sources - Attitude: Meaning and Importance - Interest and Attitude of students towards learning Computer Science - Value: Meaning and Importance; Source of Values through Personal examples set by teachers and Organisation and management of a variety of Co-Curricular activities.

UNIT IX: CLASSROOM MANAGEMENT

Concept of class Room Management – Class Room Organisation – Components of Class Room Management – Class Room Learning atmosphere – Positive Classroom climate –

Factor supporting an Effective Learning atmosphere – Advantages of Positive Learning climate – Creative Ideal classroom atmospheres – Technical teaching skills – Prevention and Control of Students – classroom Activities – Classroom Records and Rules.

UNIT-X: EVALUATION OF TEACHING – LEARNING

Different types of tests in Computer Science: Achievement, Diagnostic, Prognostic-Criterion and Norm referenced evaluation - Construction of Achievement Test –Online test- Continuous and Comprehensive Evaluation - Formative and Summative Evaluation - Statistical Measures: Mean, Median, Mode, Range, Mean Deviation, Quartile deviation, Standard Deviation, Rank Order Correlation Coefficient Method and Karl Pearson's product moment method - Graphical representation of data: Bar diagram, Histogram, Pie Chart, Frequency Polygon, Frequency curve and Ogive curve.

SUGGESTED ACTIVITIES:

- 1) Prepare a power point presentation for any two units in Computer Science and submit it.
- 2) Develop a Blog of your own and add it in online.
- 3) Visit to any IT Company to know about latest software's.
- 4) Analyse any one topic in different website and present your report by comparing it.
- 5) Explore the Usage of Office 365 and write the merits and demerits in CD.

SUGGESTED READINGS:

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Walkenbach, J. (1997). *Excel 97 Bible*. New Delhi: Comdex Computer

Yadav, M.S., (2000) *Modern Methods of Science Teaching in Secondary Schools*, New Delhi:

COURSE CODE: FCPPS**PEDAGOGY OF PHYSICAL SCIENCE - PART I****OBJECTIVES:**

At the end of the course, the student-teachers will be able to

- get sensitised the school content in Physical Science;
- comprehend the aims and objectives of teaching Physical Science;
- acquire various teaching skills and develop competence in structuring lesson plans;
- develop a theoretical understanding integration and organisation of Physical Science curriculum;
- identify various learning resources;
- explore the methods of teaching Physical Science;
- understand the issues in teaching and learning Physical Science;
- understand the diversified needs of the students;
- acquire classroom management ; and
- construct appropriate assessment tools for evaluation.

UNIT- I: SENSITISING THE SCHOOL CURRICULUM

Analysis of the Content course of Standard VI to VIII (Tamil, English, Mathematics, Science and Social science) Text Books prescribed by Government of Tamil Nadu and content course of standard IX & X (for UG), XI & XII (for PG) Text Books Prescribed by Government of Tamil Nadu.

UNIT - II: AIMS AND OBJECTIVES OF TEACHING PHYSICAL SCIENCE

Need and significance of teaching Physical Science -Aims: Practical, Social, Disciplinary and Cultural- Instructional Objectives: General Instructional Objectives (G.I.Os) and Specific Instructional Objectives(S.I.Os) relating to the Cognitive, Affective and

Psychomotor Domain based on Bloom's Taxonomy of Educational Objectives – Revised Bloom's Taxonomy

UNIT-III: TEACHING SKILLS AND ORGANIZATION OF PRACTICE - TEACHING PROGRAMME

Micro teaching: Origin, Need, Phases, Definition, Characteristics, Process, Cycle, A Plan of action, Advantage of Micro teaching and its Uses-Skills : Explaining, Questioning , Blackboard usage, Reinforcement, Stimulus variation, Introduction and Closure -Link lesson - Unit Plan - Year Plan - Lesson Plan: Need and importance ,Characteristics of good Lesson Plan, Herbartian steps, Format of a typical Lesson plan -G.I.Os and S.I.Os, Teaching Learning Materials, Motivation, Presentation, Application, Recapitulation and Assignment –Uses of Lesson plan - Organisation of Practice – Teaching Programme for B.Ed. Student-teachers - Role of the Supervisor; Role of the Principal and the Academic Staff in the Conduct of Practice teaching Programme - General Teaching Competence Scale, Self-Appraisal Scale, Guidelines for Peer Observation and Framework of Evaluation

UNIT – IV: INTEGRATION AND ORGANIZATION OF PHYSICAL SCIENCE CURRICULUM

Meaning of Curriculum, components of curriculum – Principles of curriculum construction – Vertical and Horizontal organisation of curriculum – Process of curriculum organisation: Analysis of needs, Objectives, formulation of objectives, selection of content, selection of learning experience, organisation and integration of content and learning experience and evaluation techniques.

UNIT V: DEVELOPMENT OF TEACHING LEARNING MATERIALS

Edgar dale's cone of experience - projected aids: OHP sheets, slides, LCD projector , Epidiascope and Slide Projector - Non Projected Aids: Chart, Flash Card, Poster, Graph Printed Materials, Models, Diorama, Bulletin Board, Magnetic Board and Flannel Board. Need and importance of Audio Visual Aids – Types of Audio Visual Aids – Radio, Tape recorder, Television, Computer and Activity Aids - Science Club, Science Lab, Science

Library, Field trip, Field work and Science Exhibition: Need and importance, Organization, Activities and its advantages.

UNIT-VI: STRATEGIES OF TEACHING PHYSICAL SCIENCE Methods of Teaching: Lecture, Demonstration, Project , Scientific, Analytic and Synthetic Methods - Activity Based Learning (ABL) –Active Learning Method (ALM) . Individualised Instruction – Programmed Instruction – Computer Assisted Instruction-Techniques of Teaching Physical Science: Self Study, Drill work ,Supervised Study, Assignment, Oral Work , Group discussion and Buzz Session - Interactive Teaching – Meaning and Types; Interaction Patterns generated by Teacher Centred Approaches to Teaching – Teacher Centred Strategies: Question & Answer Technique, Inductive– Deductive method - Pupil Initiated Interaction Pattern: Heuristic Method and Problem Solving Method.

UNIT –VII: ISSUES IN TEACHING AND LEARNING

Gender issues – Individual Differences, Language Problem in Learning , problems in proving laboratory equipments to students expectations, Nature of Subjects, Examination and Grading System –Difficulties in establishing a culture of evidence, Teaching and Learning Styles – Classroom behaviour of Teacher and Learner – Importance of Effective Instruction

UNIT - VIII: DIVERSIFIED NEEDS OF STUDENTS

Need for Learner Centred Approach; Historical Perspective; Attributes of learner Centred Classroom; Application of Learner Centred Approach; Integration of Learner Centred Approach with the Main Stream Education System - Non – Cognitive Abilities: Meaning and Nature - Interest: Meaning, Classification and sources - Attitude: Meaning and Importance - Value: Meaning and Importance; Source of Values through Personal examples set by teachers , Organisation and management of co-curricular activities.

UNIT - IX: CLASSROOM MANAGEMENT

Concept of class Room Management – Class Room Organisation – Components of Class Room Management – Class Room Learning atmosphere – Positive Classroom climate –

Factor supporting an Effective Learning atmosphere – Advantages of Positive Learning climate – Creative Ideal classroom atmospheres – Technical teaching skills – Prevention and Control of Students – classroom Activities – Classroom Records and Rules.

UNIT - X: EVALUATION OF TEACHING - LEARNING

Different types of tests in Physical Science: Achievement, Diagnostic, Prognostic-Criterion and Norm referenced evaluation - Construction of Achievement Test, Blue print - Continuous and Comprehensive Evaluation - Formative and Summative Evaluation- Statistical Measures: Mean, Median, Mode, Range, Mean Deviation, Quartile deviation, Standard Deviation, Rank Order Correlation Coefficient Method and Karl Pearson's product moment method - Graphical representation of data: Bar diagram, Histogram, Pie Chart, Frequency Polygon, Frequency curve and Ogive curve.

SUGGESTED ACTIVITIES:

1. Prepare different steps involved for demonstration of an experiment each one for Physics and Chemistry
2. Identify concrete and abstract concepts in physics and chemistry of any class and suggest the appropriate teaching methods and approaches to teach them and report
3. Prepare an album about scientist and their contributions to Physics and Chemistry
4. Visit a science centre or science museum (District / State / National) and prepare a report
5. Organise science exhibition and submit a write up about it

SUGGESTED READINGS:

Bhatia, K.K. (2001). *Foundations of teaching learning process*. Ludhiana: Tandon Publication.

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Physical Science Books for standard VI - XII, Tamil Nadu Text Book Corporation, Government of Tamil Nadu.

COURSE CODE: FCPBS**PEDAGOGY OF BIOLOGICAL SCIENCE - PART I****OBJECTIVES:**

At the end of the course the student-teachers will be able to

- acquire the knowledge about the school content in Biological Science;
- understand the aims and objectives of teaching Biological Science;
- acquire various teaching skills and develop competence in structuring lesson plans;
- understand the integration and organisation of Biological Science curriculum;
- identify the various learning resources;
- explore the methods of teaching Biological Science;
- understand the issues in teaching and learning Biological Science;
- understand the diversified needs of the students;
- develop skill on classroom management; and
- construct appropriate assessment tools for evaluation.

UNIT- I: SENSITISING THE SCHOOL CURRICULUM

Analysis of the Content course of Standard VI to VIII (Tamil, English, Mathematics, Science and Social science) Text Books prescribed by Government of Tamil Nadu and content course of standard IX - X (for UG), XI – XII (for PG) Biology Text Books Prescribed by Government of Tamil Nadu.

UNIT - II: AIMS AND OBJECTIVES OF TEACHING BIOLOGICAL SCIENCE

Need and significance of teaching Biological Science -Aims: Practical, Social, Disciplinary and Cultural- Aims: General Instructional Objectives and Specific Instructional Objectives relating to the Cognitive, Affective and Psychomotor Domain based on Bloom's Taxonomy– Revised Bloom's Taxonomy.

UNIT-III: TEACHING SKILLS AND ORGANIZATION OF PRACTICE - TEACHING PROGRAMME

Micro teaching: Origin, Need, Phases, Definition, Characteristics, Process, Cycle, A Plan of action, Advantage of Micro teaching and its Uses-Skills : Explaining, Questioning , Blackboard usage, Reinforcement, Stimulus variation, Introduction - Unit Plan - Year Plan - Lesson Plan: Need and importance ,Characteristics of good Lesson Plan, Herbartian steps, Format of a typical Lesson plan - Motivation, Presentation, Application, Recapitulation and Assignment –Uses of Lesson plan – Organisation of Practice – Teaching Programme for B.Ed., Student-teachers. Role of the Supervisor; Role of the Principal and the Academic Staff in the Conduct of Practice-teaching Programme. General Teaching Competence Scale, Self-Appraisal Scale, Guidelines for Peer Observation and Framework of Evaluation

UNIT – IV: INTEGRATION AND ORGANIZATION OF BIOLOGICAL SCIENCE CURRICULUM

Meaning of Curriculum, components of curriculum – Principles of curriculum construction –Organisation of curriculum – Process of curriculum organisation: Analysis of needs, Objectives, formulation of objectives, selection of content, selection of learning experience, organisation and integration of content and learning experience and evaluation techniques.

UNIT V: DEVELOPMENT OF TEACHING LEARNING MATERIALS

Edgar dale's cone of experience - Classification of teaching aids - Projected aids: OHP, slides, LCD projector, Epidiascope and Slide Projector - Non Projected Aids: Charts, Flash Cards, Printed Materials, Bulletin Board, Magnetic Board and Flannel Board. Need and importance of Audio Visual aids – Types of Audio Visual Aids – Radio, Television, Computer and Activity aids. Mobile Laboratories and Improvised Apparatus - Science club, Science lab, Library, field trip, Field work and Science Exhibition: Need and importance, Organization, activities and its advantages.

UNIT-VI: STRATEGIES OF TEACHING BIOLOGICAL SCIENCE

Methods of Teaching: Analytic, Synthetic, Inductive, Deductive, Heuristic, Problem solving, Project and Laboratory - Activity Based Learning (ABL) –Active Learning Method (ALM), Lecture Method, Demonstration Method, Scientific Method - Symposia – workshop – Brain storming– panel discussion - seminar– team teaching - Assignment and Discussion. Techniques of Teaching Biological Science: Individualized Instruction, Programmed Instruction, Computer Assisted Instruction.

UNIT –VII: ISSUES IN TEACHING AND LEARNING

Gender issues – Individual differences, Language problem in learning – Nature of subjects, Examination and grading system – Teaching and Learning styles – Classroom behaviour of Teacher and Learner - Interest and Attitude of students towards learning – Difficulties in Learning Biological Science – Slow learners and gifted learners in Biological Science – Remedial and Enrichment programmes.

UNIT VIII: DIVERSIFIED NEEDS OF STUDENTS

Need for Learner Centred Approach; Historical Perspective; Attributes of learner Centred Classroom; Application of Learner Centred Approach; Integration of Learner Centred Approach with the Main Stream Education System - Non – Cognitive Abilities: Meaning and Nature - Interest: Meaning, Classification and sources - Attitude: Meaning and Importance - Value: Meaning, Importance and Source of Values. Organisation and management of a variety of co-curricular activities.

UNIT IX: CLASSROOM MANAGEMENT

Concept of class Room Management – Class Room Organisation – Components of Class Room Management – Class Room Learning atmosphere – Positive Classroom climate – Factor supporting an Effective Learning atmosphere – Advantages of Positive Learning climate – Creative Ideal classroom atmospheres – Technical teaching skills – Prevention and Control of Students – Classroom Activities – Classroom Records and Rules.

UNIT-X: EVALUATION OF TEACHING – LEARNING

Concept of Evaluation, Objective Based Evaluation, Continuous and Comprehensive Evaluation (CCE): Summative and Formative Evaluations. Different types of tests: Standardised and Teacher made test - Achievement, Diagnostic, Prognostic- Criterion and Norm referenced evaluation - Construction of Achievement Test - Statistical Measures: Mean, Median, Mode, Range, Mean Deviation, Quartile deviation, Standard Deviation, Rank Order Correlation Coefficient Method and Karl Pearson's product moment method - Graphical representation of data: Bar diagram, Histogram, Pie Chart, Frequency Polygon, Frequency curve and Ogive curve.

SUGGESTED ACTIVITIES

1. Visit to Zoological Park / Botanical garden/ Food industry/ Agro based industry.
2. Write the life history and contributions of Carl Linnaeus/ Gregor John Mendel/ Louis Pasteur/ Ian Wilmut.
3. Preparation of improvised Biological Science kit.
4. Conducting and Organising Biological Science Quiz /Biological Science Club / Science fair.
5. Organise an event on Earth day/ Environment day/ Water day/ World health day.
6. Collection, preservation and display of museum specimen.
7. Preparation of Herbarium (5 Families).
8. Maintenance of aquarium, terrarium, vivarium, use of incubator and so on.

SUGGESTED READINGS:

Bawa, M.S & Nagpal, B.M., (2010). *Developing Teaching Competencies*. New Delhi: Viva Books Private limited,.

Bhatia, K.K. (2001). *Foundations of teaching learning process*. Ludhiana: Tandon Publication.

Buffaloe, Neal., & Throneberry, J. B. (1972). *Principles of biology teaching*. New Delhi: Prentice – Hall of India Limited.

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Heiss, Obourn.,& Hoffman. (1985). *Modern science in secondary schools*, New Delhi: Sterling Publication (Pvt.) Limited.

Joyce.,&weil.,(2004).Models of teaching. U.K: Prentice Hall of India.

Mangal, S.K., &Mangal,S. (2005). Essentials of educational technology and management. Meerut: Loyal Book Depot.

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Narendra Vaidya, (1999). *Science Teaching for the 21st Century*, New Delhi: Deep & Deep Publication, Pvt Ltd.

Nair, C.P.S., *Teaching of Science in Our School*, New Delhi: Chand & Co., Pvt Ltd.

NCERT.(2005). NCF for School Educaton. New Delhi: Anmol Publications.

Passi, B.K., (1991). Models of teaching. NCERT,New Delhi

Patton, M.Q. (1980). *Qualitative evaluation methods*. New Delhi: Sage Publications.

Science and Biology Textbooks for standard VI - XII, Tamil Nadu Text Book Corporation, Government of Tamil Nadu.

Siddifit, S. (1985). *Teaching of science today and tomorrow*. New Delhi: Doba's House.

Sharma, R.C., *Modern Science Teaching*, DhanpatRai Publishing Co. Pvt. Ltd.,

Sharma, R.A. (2008). *Technological foundations of education*. Meerut: R.Lall Books Depot.

Yadav, M.S., (2000). *Modern Methods of Science Teaching in Secondary Schools*. New Delhi: Ammol Publications Pvt. Ltd.

COURSE CODE : FCPHI**PEDAGOGY OF HISTORY - PART I****OBJECTIVES:**

At the end of the course, the student-teachers will be able to

- acquire knowledge about the school history text books from VI to XII;
- understand the aims and objectives of teaching History;
- develop effective teaching skills;
- adopt the different teaching-learning strategies;
- analyse and develop appropriate methods to deal with controversial issues in history;
- know the principles underlying history curriculum;
- plan the classroom management;
- realise the implications of teaching learning materials;
- identifying the diverse needs of students and develop suitable programmes; and
- use of various tools for evaluation.

UNIT- I: SENSITIZING THE SCHOOL CURRICULUM

Analysis of the Content course of Standard VI to VIII (Tamil, English, Mathematics, Science and Social Science) Text Books prescribed by Government of Tamil Nadu and Content course of Standard (IX to X for UG and XI to XII for PG) History Text Books prescribed by the Government of Tamil Nadu.

UNIT – II: AIMS, OBJECTIVES AND VALUES OF TEACHING HISTORY

General and Specific aims of Teaching History - Revised Blooms Taxonomy, Taxonomy of Instructional Objectives: Cognitive, Affective and Psychomotor Domain; Values of Teaching History: Social, Economic, Cultural, Moral, Philosophical, Political, Intellectual and Vocational.

Unit – III: TEACHING SKILLS AND ORGANIZATION OF PRACTICE - TEACHING PROGRAMME

Micro Teaching: Meaning, Concept, Principles and Phases of Microteaching - Developing the Skills: Introducing a Lesson, Explaining, Probing Questioning, Stimulus Variation, Reinforcement, Achieving Closure, Use of Teaching Aids, and Blackboard Usage - Link lesson: Definition, Need for Link Lesson in Micro Teaching Programme. Macro Teaching: Unit plan, Year Plan and Daily Plan, Need and Importance of Lesson Plan, Objectives based teaching, Steps in lesson plan - Organization of Practice – Teaching Programme for B.Ed., Student-teachers - Role of the Supervisor; Role of the Principal and the Academic Staff in the Conduct of Practice -teaching programme - General Teaching Competence Scale, Self-Appraisal Scale, Guidelines for Peer Observation and Framework of Evaluation.

Unit – IV: INTEGRATION AND ORGANIZATION OF HISTORY CURRICULUM

Content, principles of selection – Individual, Social, National and Global needs – Methods of organization – Logical and Psychological (stages of development), Chronological, Periodical, Concentric and Spiral, Regressive and Progressive Methods – Principles of correlation of subjects – Identical, Incidental, Systematic – Fusion with Geography, Political science, Anthropology, Literature, Economics and Sociology.

Unit – V: DEVELOPMENT OF TEACHING LEARNING MATERIALS FOR TEACHING HISTORY

Teaching Learning Materials: Significance and principles of using teaching learning materials in History – Classification of Teaching Learning Materials: Edger Dale’s cone of experience – Audio aids, Audio visual aids, Graphic aids, 3D aids, Display boards and arbitrary aids.

Unit – VI: STRATEGIES OF TEACHING HISTORY

Teacher-centred Methods : Story Telling, Dramatization, Lecture, Lecture cum Demonstration, Team Teaching, Supervised Study, Review and Drill, - Source Method : Debate, Symposium, Brain Storming, Seminar, Workshop, Demonstration - Learner

centred Methods : Heuristic Method, Problem Solving Method, Project Method, Field Work, Dalton Plan, Inductive and Deductive Methods, Analytical and Synthetic approaches.

Unit – VII: ISSUES IN TEACHING AND LEARNING HISTORY AT UPPER PRIMARY LEVEL

Teaching of Current Affairs and Controversial Issues in History: Approaches and strategies of teaching history – Qualities of history teacher.

Unit – VIII: DIVERSIFIED NEEDS OF THE LEARNERS

Interest and attitude of students toward learning history – Difficulties in learning history – Slow learners and gifted learners – Remedial and enrichment programmes.

Unit – IX: CLASSROOM MANAGEMENT

Classroom Management: Concept – Principles of Classroom management – factors influencing classroom management – Techniques of classroom management - Flander Interaction Analysis and modification of teacher behaviour.

Unit – X: EVALUATION IN HISTORY

Purposes and Functions of Evaluation – Types of Evaluation: Diagnostic, Formative, Summative and Criterion-Referenced and Norm-Referenced Evaluation - Achievement Test: Preparation of Achievement Test, Characteristics of Achievement Test, Diagnostic test and Remedial teaching of Achievement Tests in History – Standardized vs Teacher Made Tests.

SUGGESTED ACTIVITIES:

1. Preparing Journal Reflecting on the Text books from VI to XII standards
2. Demonstration of teaching skills (Micro teaching).
3. Analysis of the Strength and weakness of traditional and modern methods of teaching.
4. Writing of module for history class.
5. List out the classroom management skills.
6. Visiting the historical places and monument.
7. Reporting on Current events (scrap book) related to history.
8. Preparation and use of Power Point

9. Identifying and Cataloguing of three web-sites related to the state board history Curriculum.
10. Preparation and use of teaching and learning materials related to history.
11. Construction of Achievement Test to history.

SUGGESTED READINGS:

- Aggarwal, J.C. (1982). *Development and planning of modern education*, New Delhi: Vikas Publishing House.
- Aggarwal, J.C. (1996). *Teaching of history: A practical approach*. New Delhi: Vikas Publishing House.
- Arora, K.L. *Teaching of history*, Ludhiana: Tandon Publications.
- Arul Jothi, Balaji, D.L. & Sunil Kapoor. (2009). *Teaching of history II*. New Delhi: Centum Press.
- Balaguruswamy, E., & Sharma, K.D. (1982). *Computer in education and training*, New Delhi: NIIT.
- Bloom, Benjamin. (1974). *Taxonomy of educational objectives: Cognitive domain*, Longman.
- Chaudhry, L.P. (1975). *The effective teaching of history of India*. New Delhi: NCERT.
- Chauhan, S.S. (2008). *Innovations in teaching learning process*. UP: Vikas publishing House.
- Garrett, H.E. (1979). *Statistics in psychology and education*. Bombay: Vakils Feffer and Simons.
- Kochhar, S.K. (2003). *Teaching of history*, New Delhi: Sterling Publishing.
- Mangal, S.K. & Mangal, S. (2005). *Essentials of educational technology and managemen.*, Meerut: Loyal Book Depot.
- Sharma, R.A.(2008). *Technological foundation of education*. Meerut: R. Lall Book Depot.
- Singh, Y.K. (2009). *Teaching practice*. New Delhi: APH Publishing Corporation.
- Singh, Y.K. (2004). *Teaching of history modern methods*, New Delhi: APH Publishing Corporation.

COURSE CODE: FCPGE**PEDAGOGY OF GEOGRAPHY – PART I****OBJECTIVES:**

At the end of the course, the student-teachers will be able to

- get sensitised the school content in Geography;
- comprehend the aims and objectives of teaching Geography;
- acquire various teaching skills and develop competence in structuring lesson plans;
- integrate and organise Geography curriculum;
- identify the various learning resources;
- explore the methods of teaching Geography;
- understand the issues in teaching and learning Geography;
- understand the diversify needs of the students;
- acquire classroom management; and
- construct appropriate assessment tools for evaluation.

UNIT- I: SENSITISING THE SCHOOL CURRICULUM

Analysis of the Content course of Standard VI to VIII (Tamil, English, Mathematics, Science and Social science) Text Books prescribed by Government of Tamil Nadu, and content course of standard IX - X (for UG), XI – XII (for PG) Geography Text Books Prescribed by Government of Tamil Nadu.

UNIT - II: AIMS AND OBJECTIVES OF TEACHING GEOGRAPHY

Need and significance of teaching -Aims: Practical, Social, Disciplinary and Cultural-Instructional Objectives: General Instructional Objectives (G.I.Os) and Specific Instructional Objectives(S.I.Os) relating to the Cognitive, Affective and Psychomotor Domain based on Bloom's Taxonomy of Educational Objectives – Revised Bloom's Taxonomy.

UNIT-III: TEACHING SKILLS AND ORGANIZATION OF PRACTICE - TEACHING PROGRAMME

Micro teaching: Origin, Need, Phases, Definition, Characteristics, Process, Cycle, A Plan of action, Advantage of Micro teaching and its Uses-Skills : Explanation, Questioning , Blackboard usage, Reinforcement, Stimulus variation, Introduction and Closure -Link lesson - Unit Plan - Year Plan - Lesson Plan: Need and importance ,Characteristics of good Lesson Plan, Herbartian steps, Format of a typical Lesson plan -G.I.Os and S.I.Os, Teaching Learning Materials, Motivation, Presentation, Application, Recapitulation and Assignment –Uses of Lesson plan - Organisation of Practice – Teaching Programme for B.Ed., Student-teachers. Role of the Supervisor; Role of the Principal and the Academic Staff in the Conduct of Practice-teaching Programme - General Teaching Competence Scale, Self-Appraisal Scale, Guidelines for Peer Observation and Framework of Evaluation

UNIT-IV: INTEGRATION AND ORGANIZATION OF GEOGRAPHY CURRICULUM

Meaning of Curriculum, components of curriculum – Principles of curriculum construction – Vertical and Horizontal organisation of curriculum – Process of curriculum organisation: Analysis of needs, Objectives, formulation of objectives, selection of content, selection of learning experience, organisation and integration of content and learning experience and evaluation techniques.

UNIT-V: DEVELOPMENT OF TEACHING LEARNING MATERIALS

Edgar dale’s cone of experience - Projected aids: Over Head Projector, LCD projector, Slide Projector and Epidiascope - Non Projected Aids: Charts, Flash Cards, Print Materials, Realia and Models. Types of Boards: Bulletin Board, Magnetic Board, Smart Board, Interactive Board and Flannel Board. Need and importance of Audio Visual aids - Types of Audio Visual Aids - Graphic Aids -Activity Aids. Geography Club, Cartography Lab, Geography Library and Geographic Exhibition: Need and importance, Integration, Organizations, Activities and its Advantages

UNIT-VI: STRATEGIES OF TEACHING

Methods of Teaching: Analytic, Synthetic, Inductive, Deductive, Heuristic, Problem solving, Project and Laboratory - Activity Based Learning (ABL) –Active Learning Method (ALM) – Strategies for Teaching Geography: Regional Method, Journey Method, Excursion Method, Project Method, Comparative Method, Lecture cum Discussion Method, Question Answer Method, Inquiry and Field Visit - Interactive Teaching: Meaning and Types- Interaction Patterns Generated by Teacher Centred Approaches to Teaching.

UNIT-VII: ISSUES IN TEACHING AND LEARNING

Gender issues – Individual differences, Language problem in learning – Nature of subjects, Examination and grading system – Teaching and Learning styles – Classroom behaviour of Teacher and Learner - Need for Learner Centred Approach; Historical Perspective; Attributes of learner Centred Classroom; Application of Learner Centred Approach; Integration of Learner Centred Approach with the Main Stream Education System.

UNIT-VIII: DIVERSIFIED NEEDS OF STUDENTS

Non – Cognitive Abilities: Meaning and Nature - Interest: Meaning, Classification and sources - Attitude: Meaning and Importance - Interest and Attitude of students towards learning- Value: Meaning and Importance- Source of Values through personal examples set by Teachers and Organisation and management of a variety of Co-curricular activities – Difficulties in Learning – Slow learners and Gifted learners in Geography: Remedial measures and Enrichment programmes.

UNIT-IX: CLASSROOM MANAGEMENT

Concept of class Room Management – Class Room Organisation – Components of Class Room Management – Class Room Learning atmosphere – Positive Classroom climate – Factors supporting an Effective Learning atmosphere – Advantages of Positive Learning

climate – Creative Ideal classroom atmospheres – Technical teaching skills – classroom Activities – Classroom Records and Rules.

UNIT-X: EVALUATION OF TEACHING – LEARNING

Different types of tests in Geography: Achievement, Diagnostic, Prognostic-Criterion and Norm referenced evaluation - Construction of Achievement Test - Continuous and Comprehensive Evaluation - Formative and Summative Evaluation- Statistical Measures: Mean, Median, Mode, Range, Mean Deviation, Standard Deviation, Quartile deviation, Rank Order Correlation Method and Karl Pearson's product moment method - Graphical representation of data: Bar diagram, Histogram, Pie Chart, Frequency Polygon, Frequency curve and Ogive curve.

SUGGESTED ACTIVITIES:

1. Collect and present the History and Contributions of any one Geographer.
2. Prepare the Teaching Learning Material for any one topic in Geography.
3. Prepare the Module for any one of the Concept in Geography.
4. Prepare a report on various community resources in learning Geography.
5. Organise a Field trip and prepare a report.

SUGGESTED READINGS

Aggarwal. (2008). Teaching of social studies:A practical approach .(4th ed). UP: Vikas Publishing House Pvt Ltd.

Aggarwal. (2008). Teaching of history (4nd ed).UP: Vikas Publishing House Pvt Ltd.

Aggarwal. J. C. (2008). Principles, methods & techniques of teaching. UP: Vikas Publishing Ahemedabad: Sahitya Mudranalaya.

Aravind,G.(2005). Nationalism and social reform in a solonial situation. New Delhi: Gyan Archer, R,L. and Lewis, W.J. (1924). The teaching of geography, London, A& C Black Itd.

Arulsamy, S. and Zaya Pragassarazan, Z. (201 1). The Teaching skills and strategies, Hydreabad, Neel kamal Publicaitons Pvt. Ltd.

Bawa, M.S & Nagpal, B.M., (2010). Developing Teaching Competence. Viva Books Private limited, New Delhi.

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Bloom, B.S. (Ed) (1956). Taxonomy of Education Objectives, Hand Book-1, The Cognitive Domain, Newyork, David Mckey Company Inc. Books Pvt.

Books for standard VI - XII, Tamil Nadu Text Book Corporation, Government of Tamil Nadu.

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Harshone, R (1959). Perspective on the Nature of Geography, London, John Murray .

Henryk,S.(2005). Philosophy for a new civilisation. New Delhi: Gyan Books Pvt. Ltd.

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Kaul A. K (1991). Why and How of “Geography teaching”, Vinod publications, 346 – Booksmarket, Ludhiana. Ltd, New Delhi.

Mangal S. K and Uma Mangal (2009). Essentials of Educational Technology, PHI Learning Private

Mangal, S. k., & Mangal, S. (2005). Essentials of educational technology and management. Meerut: loyal book depot.

NCERT.(2005). NCF for School Educaton. New Delhi: Anmol Publications.

Passi, B. K. (1976). Becoming a better teacher: Micro teaching approach. Pvt. Ltd.

Passi, B.K., (1991). Models of teaching.NCERT,New Delhi.

Rekha,P. (2005). Movements in medieval india. New Delhi: Gyan Books Pvt. Ltd.

Sharma, R. A. (2008). Technological foundation of education. Meerut: R.Lall Books Depot.

Sharma, R. N. (2008). Principles and techniques of education. Delhi: Surjeet Publications.

Singh,Y. K. (2009). Teaching of history: Modern methods. New Delhi: APH Publishing Corporation.

COURSE CODE: FCPEC**PEDAGOGY OF ECONOMICS****PART I****Objectives:**

At the end of the course the student-teachers will be able to

- acquire the knowledge on the school content in Economics;
- understand the aims and objectives of teaching Economics;
- acquire various teaching skills and develop competence in structuring lesson plans;
- understand the integration and organisation of Economics curriculum;
- identify the various learning resources;
- explore the methods of teaching Economics;
- understand the issues in teaching and learning Economics;
- understand the diversified needs of the students;
- develop skill on classroom management; and
- construct appropriate assessment tools for evaluation.

UNIT- I: SENSITISING THE SCHOOL CURRICULUM

Analysis of the Content course of Standard VI to VIII (Tamil, English, Mathematics, Science and Social science) Text Books prescribed by Government of Tamil Nadu and content course of standard XI – XII Economics Text Books Prescribed by Government of Tamil Nadu.

UNIT- II: AIMS AND OBJECTIVES OF TEACHING ECONOMICS

Nature and scope of economics - Aims and values of teaching Economics - Objectives of teaching Economics based on Bloom's taxonomy- Recent trends in Economics aspects – Globalisation, Liberalization and Privatization to Economics.

UNIT-III: TEACHING SKILLS AND ORGANIZATION OF PRACTICE -

TEACHING PROGRAMME

Micro teaching: Origin, Need, Phases, Definition, Characteristics, Process, Cycle, A Plan of action, Advantage of Micro teaching and its Uses-Skills : Explaining, Questioning , Blackboard usage, probing question, Reinforcement, Stimulus variation - Link lesson - Unit Plan - Year Plan - Lesson Plan: Need and importance, Characteristics of good Lesson Plan, Herbartian steps, Format of a typical Lesson plan, Motivation, Presentation, Application, Recapitulation and Assignment –Uses of Lesson plan.

Organisation of Practice – Teaching Programme for B.Ed., Student-teachers. Role of the Supervisor; Role of the Principal and the Academic Staff in the Conduct of Practice-teaching Programme. General Teaching Competence Scale, Self-Appraisal Scale, Guidelines for Peer Observation and Framework of Evaluation

UNIT – IV: INTEGRATION AND ORGANIZATION OF ECONOMICS

CURRICULUM

Meaning of Curriculum, components of curriculum – Principles of curriculum construction –Organisation of curriculum – Process of curriculum organisation: Analysis of needs, Objectives, formulation of objectives, selection of content, selection of learning experience, organisation and integration of content and learning experience and evaluation techniques.

UNIT -V: DEVELOPMENT OF TEACHING LEARNING MATERIALS

Edgar dale's cone of experience - Classification of teaching aids - Projected aids: OHP, slides, LCD projector, Epidiascope and Slide Projector - Non Projected Aids: Charts, Flash Cards, Printed Materials, Bulletin Board, Magnetic Board, Flannel Board, Flash

cards, Poster, Graph, Models and Diorama - Need and importance of Audio Visual aids – Types of Audio Visual Aids – Radio, Television, Computer.

UNIT-VI: STRATEGIES OF TEACHING ECONOMICS

Methods of Teaching: Analytic, Synthetic, Inductive, Deductive, Heuristic, Problem solving, Project - Activity Based Learning (ABL) –Active Learning Method (ALM), Lecture Method - Symposia – discussion – workshop – Brain storming– panel discussion - seminar– team teaching - Assignment and Discussion. Techniques of Teaching Economics: Individualized Instruction, Programmed Instruction, Computer Assisted Instruction.

UNIT –VII: ISSUES IN TEACHING AND LEARNING

Gender issues – Individual differences, Language problem in learning – Nature of subjects, Examination and grading system – Teaching and Learning styles – Classroom behaviour of Teacher and Learner. Interest and Attitude of students towards learning – Difficulties in Learning Economics – Slow learners and gifted learners – Remedial and Enrichment programmes.

UNIT- VIII: DIVERSIFIED NEEDS OF STUDENTS

Need for Learner Centred Approach - Historical Perspective - Attributes of learner Centred Classroom - Application of Learner Centred Approach - Integration of Learner Centred Approach with the Main Stream Education System.

Non – Cognitive Abilities: Meaning and Nature - Interest: Meaning, Classification and sources - Attitude: Meaning and Importance - Value: Meaning, Importance and Source of Values. Organisation and management of a variety of co-curricular activities.

UNIT- IX: CLASSROOM MANAGEMENT

Concept of class Room Management – Class Room Organisation – Components of Class Room Management – Class Room Learning atmosphere – Positive Classroom climate – Factor supporting an Effective Learning atmosphere – Advantages of Positive

Learning climate – Creative Ideal classroom atmospheres – Technical teaching skills – Prevention and Control of Students – Classroom Activities – Classroom Records and Rules.

UNIT-X: EVALUATION OF TEACHING - LEARNING

Concept of Evaluation, Objective Based Evaluation, Continuous and Comprehensive Evaluation, Summative and Formative Evaluation. Different types of tests: Standardised and Teacher made test - Achievement, Diagnostic, Prognostic- Criterion and Norm referenced evaluation - Statistical Measures: Mean, Median, Mode, Range, Mean Deviation, Quartile deviation, Standard Deviation, Rank Order Correlation Coefficient Method and Karl Pearson's product moment method - Graphical representation of data: Bar diagram, Histogram, Pie Chart, Frequency Polygon, Frequency curve and Ogive curve.

SUGGESTED ACTIVITIES:

1. Observe a day's proceedings in house of assembly or parliament budget report.
2. Collect newspaper clippings on any economic issue and write a report on the issue with your commands.
3. Organise anyone of the economic awareness programme and report for state and Central Government.
4. Field visit and report writing of any one cottage or small scale industry).
5. Critical analysis of the characteristics of economics textbook of XI / XII standard and prepare a detailed report.

Suggested Readings

Aggarwal, J. C. (2005). *Teaching of Economics*. Agra: Vinod Pustak Mandir.

Becker, G.W., (1964). *An Introduction to the Economics of Education*, Penguin, London.

Bloom, Benjamin, (1974). *Taxonomy of Educational Objectives, Cognitive domin*, Longman Green.

Bowman, M.J. et al. (Eds.) (1968). *Readings in the Economic of Education*. Paris:UNESCO.

Chauhan, S.S., (2008). *Innovations in Teaching Learning Process*, UP: Vikas Publishing House Private Ltd.

Dhand, H. (2009). *Techniques of Teaching*. New Delhi: APH Publishing Corporation.

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Patton, M.Q. (1980). *Qualitative evaluation methods*. New Delhi: Sage Publications.

Rudramamba, B. (2004). *Method of Teaching Economics*. New Delhi: Discovery publication house.

Singh, Y. K. (2009). *Teaching Practice*. New Delhi: APH Publishing Corporation.

Sharma, S. (2004). *Modern Technologies of Teaching Economics*. New Delhi: Anmol Publishing House.

Yadav. (2003). *Teaching of Economics*. New Delhi: Anmol publication.

COURSE CODE : FCPCA**PEDAGOGY OF COMMERCE AND ACCOUNTANCY -
Part - I****OBJECTIVES:**

- At the end of the course, the student teacher will be able
- To help the student teachers to acquire the knowledge of nature and historical development
 - To understand the aims, objectives and planning for instruction to teach commerce.
 - To understand and develop different micro-teaching skills.
 - To develop competency in different methods and techniques of teaching.
 - To understand different types of techniques in curriculum construction.
 - To get familiarize with the various learning resources for professional effectiveness.
 - To understand the need for the different types of training programme and qualities of a commerce teacher and commerce text book.
 - To enable the student teachers to understand the classroom climate and classroom
 - To develop competency in constructing achievement test in commerce and accountancy
 - To help the student teachers to sensitize the school content in commerce and accountancy

Unit - I: SENSITISING THE SCHOOL CURRICULUM

Analysis of the Content course of Standard VI to VIII (Tamil, English, Mathematics, Science and Social Science) Text Books prescribed by Government of Tamil Nadu and course content of standard XI and XII Commerce and Accountancy textbooks prescribed by govt. of Tamil Nadu

Unit - II: AIMS AND OBJECTIVES OF TEACHING OF COMMERCE AND ACCOUNTANCY

Aims and Objectives – meaning and definition – Bloom’s taxonomy of educational Objectives: cognitive, affective and psychomotor domains – relationship between objectives.

Unit - III: TEACHING SKILLS AND ORGANIZATION OF PRACTICE TEACHING PROGRAMME

Micro teaching – history and development – definition, objectives and characteristics- steps and procedure – micro teaching cycle – Major micro teaching skills: skill of explaining, stimulus variation, black board writing, reinforcement and illustrating with examples – need for a link lesson - Planning – need and importance – year plan and unit plan – its importance and preparation - Lesson Plan: need, principles, steps and requirements – preparation of lesson plan for both commerce and accountancy - review and assignment – purpose, types of assignment – characteristics of a good assignment - remedial measures.

Organisation of Practice – Teaching Programme for B.Ed., Student-teachers. Role of the Supervisor: Role of the Principal and the Academic Staff in the Conduct of Practice – teaching Programme. General Teaching competence Scale, Self-Appraisal Scale, Guidelines for peer Observation and Framework of Evaluation.

Unit – IV: INTEGRATION AND ORGANIZATION OF COMMERCE AND ACCOUNTANCY CURRICULUM

Curriculum – meaning and importance – principles in construction – process and approaches in curriculum construction - curriculum organization – state board and CBSE – its comparison – a critical review of higher secondary school commerce and accountancy syllabus of academic and vocational courses.

Unit – V: DEVELOPMENT OF TEACHING LEARNING MATERIALS FOR TEACHING COMMERCE AND ACCOUNTANCY

Teaching Learning Materials: latest trends in curriculum construction in the Instructional Aids – meaning, need and kinds - importance of audio – visual aids and its merits and limitations – Instructional materials in commerce: need and importance – classification of instructional material – projected and non-projected material – uses of instructional material in teaching and learning commerce.

Unit – VI: STRATEGIES OF TEACHING COMMERCE AND ACCOUNTANCY

Methods of teaching - meaning, need and characteristics of good teaching method and its classification – lecture method, descriptive, problem solving, inductive and deductive and case study method. Techniques of teaching – role playing, brainstorming, buzz session, stimulation, seminar, symposium, group discussion, workshop and team teaching.

Unit – VII: ISSUES IN COMMERCE EDUCATION

Commerce Education – meaning, nature and scope - historical development – need for commerce and accountancy education – fulfilling the present day needs – values of teaching commerce and accountancy: practical, social, cultural, moral, disciplinary and vocational values. Correlation of commerce and accountancy with reference to economics, mathematics, commercial geography, business administration and management.

Gender issues – Individual differences, Language problem in learning – Nature of subjects, Examination and grading system – Teaching and Learning styles – Classroom behaviour of Teacher and Learner – Difficulties in Learning Commerce and Accountancy –

Unit - VIII: COMMERCE DEPARTMENT AND RESOURCES

Commerce department: library, equipment's, records and registers – Commerce teacher: academic and professional qualifications – preparation of teachers' diary - pre-service and in-service – qualities of a commerce teacher – social responsibilities of a commerce teacher - problems faced by the commerce teacher. Commerce and Accountancy text-book – need and importance – qualities of a good text book - principles of selecting a good text-book – criteria for development and evaluation of a text book.

Classroom interaction analysis - classroom climate – meaning and managing tasks – factors influencing for creating better classroom climate – classroom discipline – role of the commerce teacher.

Unit – IX: CLASSROOM MANAGEMENT

Classroom management – concept, principles and techniques - understanding student needs – factors influencing classroom management- Time Management.

Unit – X: EVALUATION IN COMMERCE AND ACCOUNTANCY

Testing and Evaluation - purpose and administration of a test – types of evaluation - questions: objective type, short answers and essay type - criteria for good test - construction of achievement test – design. Blueprint, marking schemes – administration of

an achievement test – scoring and recording of test results. Educational statistics – graphical representation – measures of central tendency; mean, median and mode – measures of dispersion and its uses in classroom situation - correlation and rank correlation.

SUGGESTED ACTIVITIES

1. Preparing Journal Reflective on the Text books from VI to XII standard
2. Demonstration of teaching skills (micro teaching)
3. Analysis of the strength and weakness of traditional and modern methods of teaching
4. Writing of module for Commerce and Accountancy class.
5. List out the classroom management skills.
6. Visiting the Industries and Market write a report.
7. Reporting on Current events (scrap book) related to Commerce and Accountancy.
8. Preparation and use of Power Point
9. Identification and Cataloguing of three web-sites related to the state board Commerce and Accountancy Curriculum
10. Preparation and use of teaching and learning materials related to Commerce and Accountancy.
11. Construction of Achievement Test to Commerce and Accountancy.

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1. Aggarwal, J.C., (2005) Educational technology and Management, Vinod Pustak Madir,
2. Boynton, L.O (1995) Methods of teaching Book keeping, Cincinnati: South Western
3. Dhand, H. (2009) Techniques of Teaching, New Delhi: APH Publishing Corporation.
4. Khan, M.S (1982). Commerce Education, New Delhi: Sterling Publishers.
5. Laxmi Devi (1997) Economics of Education, India: Bhargava Publications.
6. Lynn Erisson, H. (1998) Concept based curriculum instruction, India : SAGE Publications.
7. Mangal, S.K., (2001) Foundations of Educational Technology, Tandon Publications,
8. Passi, B.K and Lalita, M.A., (1976) Micro – Teaching: Theory and Research, Jugal

9. Rao, Seema, (1995), Teaching of Commerce, New Delhi: Anmol Publications.
10. Rao, S. (2004), Teaching of Commerce, New Delhi: Anmol Publications.
11. Satish C. Chandha, (2006) Educational Technology and Measurement, R.Lall Book
12. Sharma, R.A., (2005) Teaching of Commerce, Meerut : Surya Publication.
13. Siddiqui, M.H. (2009), Techniques of Teaching, New Delhi: APH Publishing Corporation.
14. Singh, R.P., (2005) Teaching of Commerce, Meerut: Surya Publication.
15. Sivarajan. K. And Lal. E.K., (2002) Commerce Education, Methodology of Teaching and Pedagogic Analysis, Calicut: Calicut University.

COURSE CODE: FCPHS**PEDAGOGY OF HOME SCIENCE - PART I****OBJECTIVES:**

At the end of the course, the student-teachers will be able to

- acquire knowledge about the school home science text books from VI to XII Standards;
- understand the aims and objectives of teaching home science;
- develop effective teaching skills;
- adopt the different teaching-learning strategies;
- analyse and develop appropriate methods to deal with controversial issues in home science;
- know the principles underlying home science curriculum;
- plan the classroom management;
- realise the implications of teaching learning materials;
- identify the diversified needs of students and develop suitable programmes and
- use of various tools for evaluation.

UNIT- I: SENSITIZING THE SCHOOL CURRICULUM

Analysis of the Content course of Standard VI to VIII (Tamil, English, Mathematics, Science and Social Science) Text Books prescribed by Government of Tamil Nadu and Content course of Standard XI to XII for PG Home science Text Books prescribed by the Government of Tamil Nadu.

UNIT – II: AIMS, OBJECTIVES AND VALUES OF TEACHING HOME SCIENCE

General and Specific aims of Teaching Home science - Revised Blooms Taxonomy, Taxonomy of Instructional Objectives: Cognitive, Affective and Psychomotor Domain; Values of Teaching Home science: Social, Economic, Cultural, Moral, Philosophical, Political, Intellectual and Vocational.

Unit – III: TEACHING SKILLS AND ORGANIZATION OF PRACTICE - TEACHING PROGRAMME

Micro Teaching: Meaning, Concept, Principles and Phases of Microteaching - Developing the Skills: Introducing a Lesson, Explaining, Probing Questioning, Stimulus Variation, Reinforcement, Achieving Closure, Use of Teaching Aids, and Blackboard Usage - Link lesson: Definition, Need for Link Lesson in Micro Teaching Programme - Macro Teaching: Unit plan, Year Plan and Daily Plan, Need and Importance of Lesson Plan, Objectives based teaching, Steps in lesson plan - Organization of Practice – Teaching Programme for B.Ed., Student-teachers - Role of the Supervisor; Role of the Principal and the Academic Staff in the Conduct of Practice -teaching programme - General Teaching Competence Scale, Self-Appraisal Scale, Guidelines for Peer Observation and Framework of Evaluation.

Unit – IV: INTEGRATION AND ORGANIZATION OF HOME SCIENCE CURRICULUM

Principles of curriculum development, selection of content and organization of subject matter status of home science curriculum in senior secondary education.

Unit – V: DEVELOPMENT OF TEACHING LEARNING MATERIALS FOR TEACHING HOME SCIENCE

Teaching Learning Materials: Significance and principles of using teaching learning materials in Home science – Classification of Teaching Learning Materials: Edger Dale’s cone of experience – Audio aids, Audio visual aids, Graphic aids, 3D aids, Display boards and Arbitrary aids.

Unit – VI: STRATEGIES OF TEACHING HOME SCIENCE

Scientific methods: Observation, enquiry, hypothesis, experimentation, data collection, generalization. Inductive and deductive procedures, lecture cum discussion method, lecture cum demonstration method, laboratory method, question-answer method - Heuristic method, project method, biographical approaches in teaching home science,

communication in teaching home science, collaborative learning and experimental learning in home science, facilitating learners for self-study.

Unit – VII: ISSUES IN TEACHING AND LEARNING HOME SCIENCE AT UPPER PRIMARY LEVEL

Teaching of Current Affairs and Controversial Issues in Home science: Approaches and strategies of teaching home science – Qualities of home science teacher.

Unit – VIII: DIVERSIFIED NEEDS OF THE LEARNERS

Interest and attitude of students toward learning home science – Difficulties in learning home science – slow learners and gifted learners – Remedial and enrichment programmes.

Unit – IX: CLASSROOM MANAGEMENT

Classroom Management: Concept – Principles of Classroom management – factors influencing classroom management – Techniques of classroom management - Flanders Interaction Analysis and modification of teacher behaviour.

Unit – X: EVALUATION IN HOME SCIENCE

Purposes and Functions of Evaluation – Types of Evaluation: Diagnostic, Formative, Summative and Criterion-Referenced and Norm-Referenced Evaluation - Achievement Test: Preparation of Achievement Test, Characteristics of Achievement Test, Diagnostic test and Remedial teaching of Achievement Tests in Home science – Standardized Vs Teacher Made Tests.

SUGGESTED ACTIVITIES:

1. Preparing Journal Reflecting on the Text books from VI to XII standards.
2. Plan of equipments for home science lab in schools.
3. Demonstration of teaching skills (Micro teaching).
4. Analysis of the Strength and weakness of traditional and modern methods of teaching.
5. Writing of module for home science class.
6. List out the classroom management skills.
7. Preparation of radio and TV lessons.
8. Reporting on Current events (scrap book) related to home science.
9. Preparation and use of Power Point.

10. Identifying and Cataloguing of three web-sites related to the state board home science Curriculum.
11. Preparation and use of teaching and learning materials related to home science.
12. Construction of Achievement Test to home science.

SUGGESTED READINGS:

- Sharma B.L. *Teaching of home science*. Meerut. Vinay Rakheja Publications.
- Sharma R.S. and Kaushik. *Principles of home science*. New Delhi. Anmol Publications.
- Seema Yadav. *Teaching of home science*. New Delhi. Anmol Publications.
- Mujibul Hasan Siddiqui. *Teaching of home science*. New Delhi. APH Publications.
- Reddy.R.S. *Nutrition education*. New Delhi. Commonwealth Publisher.
- Anita Varma. *Graha vighyan shikshan*. Varanasi. Vijay Prakashan Mandir.
- Arvindra Chandra, Anupama Saha. *Fundamentals of teaching of home science*. New Delhi. Sterling Publisher.
- Archana Satarkar. *Food science and nutrition*. Jaipur. ABD Publisher.
- Sreedevi.V. *Nutrition education*. New Delhi. Discovery Publishing house.

COURSE CODE: FCPSS**PEDAGOGY OF SOCIAL SCIENCE****Part - I****OBJECTIVES**

At the end of the course, the student-teacher will be able to

- acquires knowledge of the school Social Science text books from VI to XII;
- understands the aims and objectives of teaching Social Science;
- develops effective teaching skills;
- adopt the different teaching-learning strategies;
- analysis and develop appropriate methods to deal with controversial issues in Social Science;
- know the principles underlying Social Science curriculum;
- plan the classroom management;
- realise the implications of teaching learning materials;
- identifying the diverse needs of students and develop suitable programmes and;
- use various tools of evaluation.

UNIT- I: SENSITIZING THE SCHOOL CURRICULUM

Analysis of the Content course of Standard VI to VIII (Tamil, English, Mathematics, Science and Social Science) Text Books prescribed by Government of Tamil Nadu and Content course of Standard (IX to X for UG and XI to XII for PG) Social Science Text Books prescribed by the Government of Tamil Nadu.

UNIT – II: AIMS, OBJECTIVES AND VALUES OF TEACHING SOCIAL SCIENCE

General and Specific aims of Teaching Social Science- Revised Blooms Taxonomy, Taxonomy of Instructional Objectives: Cognitive, Affective and Psychomotor Domain; Values of Teaching Social Science: Social, Economic, Cultural, Disciplinary, Moral, Philosophical, Political, Intellectual and Vocational.

Unit – III: TEACHING SKILLS AND ORGANIZATION OF PRACTICE - TEACHING PROGRAMME

Micro Teaching: Meaning, Concept, Principles and Phases of Microteaching - Developing the Skills: Introducing a Lesson, Explaining, Probing Questioning, Stimulus Variation, Reinforcement, Achieving Closure, Use of Teaching Aids, and Blackboard Usage - Link lesson: Definition, Need for Link Lesson in Micro Teaching Programme. Macro Teaching: Unit plan, Year Plan and Daily Plan, Need and Importance of Lesson Plan, Objectives based teaching, Steps in lesson plan.

Organisation of Practice – Teaching Programme for B.Ed., Student-teachers. Role of the Supervisor; Role of the Principal and the Academic Staff in the Conduct of Practice-teaching Programme. General Teaching Competence Scale, Self-Appraisal Scale, Guidelines for Peer Observation and Framework of Evaluation

Unit – IV: INTEGRATION AND ORGANIZATION OF SOCIAL SCIENCE CURRICULUM

Content, principles of selection – Individual, Social, National and Global needs – Methods of organization – Logical and Psychological (stages of development), Chronological, Periodical, Concentric and Spiral, Regressive and Progressive Methods – Principles of correlation of subjects – Identical, Incidental, Systematic – Fusion with Geography, Political science, Anthropology, Literature, Economics and Sociology

Unit – V: DEVELOPMENT OF TEACHING LEARNING MATERIALS FOR TEACHING SOCIAL SCIENCE

Teaching Learning Materials: Significance and principles of using teaching learning materials in Social Science – Classification of Teaching Learning Materials: Edger Dale's cone of experience – Audio aids, Audio visual aids, Graphic aids, 3D aids, Display boards and Arbitrary aids.

Unit – VI: STRATEGIES OF TEACHING SOCIAL SCIENCE

Teacher-centred Methods : Story Telling, Dramatization, Lecture, Lecture cum Demonstration, Team Teaching, Supervised Study, Review and Drill, Source Method-

Debate, Symposium, Brain Storming, Seminar, Workshop, Demonstration - Learner centred Methods : Heuristic Method, Problem Solving Method, Project Method, Field Work, Dalton Plan, Inductive and Deductive Methods, Analytical and Synthetic approaches.

Unit – VII: ISSUES IN TEACHING AND LEARNING SOCIAL SCIENCE AT UPPER PRIMARY LEVEL

Teaching of Current Affairs and Controversial Issues in Social Science: Approaches and strategies of teaching Social Science – Qualities of Social Science teacher.

Unit – VIII: DIVERSIFIED NEEDS OF THE LEARNERS

Interest and attitude of students toward learning Social Science – Difficulties in learning Social Science – slow learners and gifted learners – Remedial and enrichment programmes.

Unit – IX: CLASSROOM MANAGEMENT

Classroom Management: Concept – Principles of Classroom management – factors influencing classroom management – Techniques of classroom management - Flander Interaction Analysis and modification of teacher behaviour.

Unit – X: EVALUATION IN SOCIAL SCIENCE

Purposes and Functions of Evaluation – Types of Evaluation: Diagnostic, Formative, Summative and Criterion-Referenced and Norm-Referenced Evaluation - Achievement Test: Preparation of Achievement Test, Characteristics of Achievement Test, Diagnostic test and Remedial teaching of Achievement Tests in Social Science – Standardized vs Teacher Made Tests.

SUGGESTED ACTIVITIES

12. Preparing Journal Reflective on the Text books from VI to XII standard
13. Demonstration of teaching skills (micro teaching)
14. Analysis of the strength and weakness of traditional and modern methods of teaching
15. Writing of module for Social Science class.
16. List out the classroom management skills.
17. Visiting the historical, geographical places and monument.
18. Reporting on Current events (scrap book) related to Social Science.

19. Preparation and use of Power Point
20. Identification and Cataloguing of three web-sites related to the state board Social Science Curriculum
21. Preparation and use of teaching and learning materials related to Social Science.
22. Construction of Achievement Test to Social Science

Suggested Readings

1. Aggarwal, J.C. (1993). *Teaching of Social Studies- A Practical Approach*, 2nd revised Edition. New Delhi: Vikas Publishing House.
2. Benjamin, S.B.J. Thomas, F & George F.M. (1971). *Hand book of Formative and Summative Evaluation of Student Learning*, New York: Mc crow Hill Book Company.
3. Bining A.C. and Bining D.H (1952). *Teaching of Social Studies in Secondary School*. Bombay: Tata Mc Mc crow Hill Book Company.
4. Dash, B.M. *Concrete –cum- method of Teaching of Social Studies*. New Delhi: Kalyani Publications.
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7. Kochar, S.K. (1998). *Teaching of Social Studies*. New Delhi Sterling publications.
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9. Mittal, H.C, *Teaching of Social Studies*. New Delhi Dhanpat Rai and Chandra R.N. Sons.
10. Mottart, Maurice, P. *Elementary Social Studies instructions*. New York: Longman, Green and Co.
11. Mofatt, Maurice, P. *Social Studies instruction*. New York: Prentice Hall.
12. Preston, Ralph, C. (1965). *Hand book of Social Studies*. Renhart and Company.
13. Shaid, B.D. (1962). *Teaching of Social Studies*. Jalandhar: Panipet.
14. Sidhu, H.S. *Teaching of Social Studies*. Ludhiana: Tondon Publishers.
15. Garrett, H.E. (1979). *Statistics in psychology and education*. Bombay: Vakils Feffer and Simons.

COURSE CODE: FCPAL**ASSESSMENT OF LEARNING****Objectives:**

At the end of the course, the student teacher will be able to

- Acquire basic concepts in evaluation.
- Develop the awareness about different areas of assessment.
- Discriminate different perspectives in assessment.
- Describe grading systems in schools.
- Understand the Instructional Objectives.
- Know different characteristics of instruments of evaluation.
- Discriminate the different types of test.
- Develop knowledge on Continuous and comprehensive evaluation.
- Attain knowledge about teaching effectiveness and assessment.
- Understand the Quantitative analysis and interpretation of test scores.

COURSE CONTENT**UNIT 1: Basics of Evaluation**

Meaning and definition of Evaluation - Evaluation in Education – Steps of evaluation process – Characteristics of good evaluation – Continuous and Comprehensive Evaluation – Formative and Summative Evaluation – Norm reference and criterion reference tests – Uses of evaluation.

UNIT 2: Different Domains of Learning

Educational objectives- instructional objectives - relationship between educational and instructional objectives – the changing concepts of educational objectives into instructional objectives – classification of educational objectives (Taxonomy) – cognitive

domain - affective domain – psychomotor domain – functions of educational objectives – recent changes of instructional objectives: Bloom system – NCERT- Regional Institute of Education, Mysore (RIEM) – Usefulness of the taxonomical classification – principles for the statement of instructional objectives.

UNIT 3: Assessment of Learning

Traditional assessment- Constructivist assessment – Traditional and Constructivist teacher – Purpose of assessment in a ‘constructivist’ paradigm: to engage with learner’s minds in order to further learning in various dimensions – Assessment for learning and assessment of learning; relative merits and demerits – Assessment of different types of content – Achievement, Performance, Values, Attitude and Aptitude. – Assessment for different purposes – Placement, Diagnosis and Grading.

UNIT 4: Continuous and Comprehensive Evaluation (CCE)

Aim, Objective and characteristics of CCE - Continuous and Comprehensive Evaluation – Scholastic area – Co-Scholastic area – Functions of continuous and comprehensive evaluation – Recording and reporting: measurement of students’ achievements – feedback as essential component of assessment

UNIT 5: Characteristics of Instruments of Evaluation

Validity – different methods of finding validity – Reliability – different methods of finding reliability – Objectivity – Interdependence of validity, reliability and objectivity – Usability – Norms.

UNIT 6: Grading System

Drawback of traditional scoring system and traditional system – grading system – comparative / relative grading , advantages and limitations – absolute grading: pre – established percentage scores, criterion- referenced grading, numerical grading – guidelines for effective grading.

UNIT 7: Types of Test

Paper pencil test, Oral test, and performance test – Achievement test: standardized and teacher made tests- Diagnostic test - Intelligence tests- Achievement test – Types of achievement test and active tests – Rating scale – Check list – Anecdotal records - socio-metric technique – Interview , Questionnaire and Inventory - Use of test data: placement, promotion, grouping, diagnosis and remediation – self reporting techniques/ Reflection as assessment technique for learning.

Unit 8: Tests for Children with Special Needs

Performance test, infant and pre – school testing – Assessment of mentally retarded – system of multicultural pluralistic assessment (SOMPA) – Testing the physically handicapped.

UNIT 9: Teaching Effectiveness and Assessment:

Concept and criteria for assessing teaching effectiveness – Assessing teaching using observation schedules – Student evaluation of teaching - Student's ratings of teaching effectiveness, dimensions and problems – Uses of assessment for feedback for improving instructional process - System (Flander's) for observation, for recording classroom interaction patterns and uses - Use of interaction analysis in the classroom for teacher assessment.

UNIT 10: Quantitative Analysis and Interpretation of Test Scores

Meaning – functions of significance – applications of educational statistics – tabulation – frequency – table, measures of central tendency – arithmetic mean, median, mode, range and percentiles – measures of variability –standard deviation, Quartile deviation and Average deviation - The normal distribution and its properties – concepts of skewness and kurtosis – correlation : definition, meaning and uses – computing the coefficient of correlation by the rank difference method – graphical representation of data – bar diagram, histogram, frequency polygon – its interpretations and implications.

Practicum:

1. Preparation, administration and interpretation of results of tests and different evaluation techniques
2. Writing educational objectives, learning experience and corresponding evaluation techniques, general and specific objectives
3. Framing measurable and non- measurable learning outcomes
4. Finding out the content reliability and validity of the given question paper
5. Designing rating scale, questionnaire, interview schedule in a given a topic
6. Prepare graphs and use statistics for analysis of test result

Reference Books

Anastasi, Anne, (1976), Psychological Testing, 4th end. New York; Macmillan Publishing Co. Inc.

Agarwal, Y.P. (1990), Statistical Methods – Concepts, Applications and Computation, New Delhi : Sterling Publishers Pvt. Ltd.

Bertrand, Arthur and Cebuls, Joseph P., (1980): Tests, Measurement and Evaluation A Development Approach, U.S.A: Addison-Wesley.

Bloom, Benjamin S., et.al (1971): Handbook on Formative and Summative Evaluation in Student Learning. U.S.A: McGraw Hill.

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Patel, R.N. (1978). Educational Evaluation-Theory and Practice, Bombay: Himalaya Publishing House.

Popham. W. James (1990). Modern Educational Measurement: Practitioners Perspectives, U.S.A: Prentice-Hall.

Singh, Pritam, (1989). Handbook of Pupil Evaluation, New Delhi: Allied Publishers.

Singh.P. (1989). Scheme of Continuous Comprehensive Evaluation for Navodaya Vidyalayas, Navodaya Vidyalaya Samiti, MHRD, New Delhi.

Srivastava, H.S. (1989). *Comprehensive Evaluation in School*, NCERT, New Delhi

Srivastava, H.S. and Pritamn Singh (1977): *Use of Test Material in Teaching*. NCERT: New Delhi

Stodola Quentin & Stordhal Kalmer, (1972), *Basic Educational Tests and Measurement*; New Delhi; Thomson Press (India Limited).

Thorndike, R.L. & Hagen, EP., (1969), *Measurement and Evaluation in Psychology and Education*, 3rd ed; New York; John Wiley & Sons Inc.

Wine, R.L. (1976), *Beginning Statistics*, Massachusetts : Winthrop Publishers Inc.,.

COURSE CODE: FEPCY**YOGA, HEALTH AND PHYSICAL EDUCATION****OBJECTIVES:**

At the end of the course, the student-teacher will be able to

- define the concept of yoga;
- classify the asanas and pranayama;
- classify the meaning and significance of kriya yoga;
- learn good health habits;
- understand the nature of injuries and to care emergencies and provide first aid;
- list out the communicable diseases;
- explain the physical education concepts and its scope;
- practice the various physical exercises;
- write lesson plans; and
- acquire skills to organise and conduct sports in schools.

UNIT- I: INTRODUCTION TO YOGA

Meaning, Concept and Historical Development of Yoga – Misconception about Yoga - Aims and objectives - Eight limbs of yoga - Guidelines for practicing yoga - Benefits of yoga – Physiological, Psychological, Therapeutic and Physical.

UNIT – II: ASANAS

Meaning, Methods and benefits of Asanas – Sitting posture: Padmasana, Mathyasana, Vajrasana, Paschimottanasana, Vakrasana, Yogamuthra – Standing posture: Trikonasana, Vrishasana, Chakrasana, Padahasthasana, Tadasana, Vutkathasana- Lying Posture: Shalabhasana, Dhanurasana, Bhujangasana, Halasana, Pavanamuktasana, Vipritatarani – Surya namaskar: Meaning, Twelve stages of Surya namaskar, Benefits, Preventive and curative effects of asanas.

UNIT – III: PRANAYAMA, MUDRA, KRIYAS AND MEDITATION

Pranayama: Meaning and Practice of Pranayama. Types of Pranayama – NadiSodhan, Ujjayi, Benefits. Mudra: Meaning – Types of Mudra – Chin Mudra, Pran Mudra, Benefits. Kriyas: Meaning, Methods and benefits of Kriyas. Types of Kriyas – Kaphalabhati, Neti, Dhauti. Nauli, Basti, Trataka, Benefits. Meditation: Meaning, Objectives. Types of Meditation: Transcendental meditation, Breathing meditation, Object meditation, Benefits.

UNIT - IV: HEALTH EDUCATION

Meaning, Aims & Objectives - Scope of Health Education - Methods of Imparting Health Education in Schools – Health Instruction – Health Services – Health Supervision - Posture – Meaning, causes, defects and prevention - First Aid – Meaning, Principles of first aid, Content in the first aid box - Need and importance of first aid - Qualification of a first aider - First Aid in different cases.

UNIT - V: FOOD AND NUTRITION

Food: Meaning and Classification - Carbohydrates, Proteins, Fats, Vitamins, Minerals, Roughage and Water - Guidelines for food selection - Food preservation – Nutrition: Meaning and Concept – Malnutrition - Balanced diet - Diet for obesity and underweight.

UNIT – VI: COMMUNICABLE DISEASES AND LIFE STYLE DISORDER

Communicable diseases: Meaning – Types: Malaria, Typhoid, Tuberculosis, Cholera, Diarrhea and HIV Aids – Causes, symptoms and treatment - Life style disorder – Diabetes, Hyper Tension, Heart Attack, Obesity and Ulcer – Causes, Symptoms and treatment.

UNIT – VII: INTRODUCTION TO PHYSICAL EDUCATION

Concept and Meaning, Definition, Aims and Objectives of Physical Education - Scope, Need and Importance of Physical Education - Physical Fitness: Meaning, Definition, and Health related components of Physical fitness: Muscular Strength, Muscular Endurance, Flexibility, Cardio – respiratory endurance and Body composition, benefits of Physical fitness.

UNIT – VIII: PHYSICAL EXERCISE

Meaning - Need and Importance of Physical Exercise - Effects of exercise on various system – Muscular, Circulatory, Digestive, Nervous and Respiratory systems.

UNIT – IX: RULES OF GAMES AND SPORTS, LESSON PLAN AND METHODS OF TEACHING

Games: Volleyball – Dimension of court, skills and basic rules, Kabaadi – Dimension of court, skills and basic rules, Kho-Kho – Dimension of court, skills and basic rules, Track ; Laying of 400 Meters Track - Lesson plan – Meaning, Values and preparation of general lesson plan - Methods of teaching: common method, lecture method, demonstrations method, reciprocal method, discussion method, whole method, part method, whole-part-whole method, progressive method, observation method and project method.

UNIT – X: ORGANISING COMPETITIONS

Intramural and extramural competitions – Meaning, Definition - Organising and Conducting, Sports meet – types: Standard, Non-standard, Organising and Conducting, Tournaments: Single league and Single League and Single Knock Out– Preparation and drawing fixtures, merits and demerits.

SUGGESTED ACTIVITIES:

1. Sit in a meditative posture and mediate for 30 minutes. Record your experiences briefly.
2. Visit any one school and interview with the students about their participation in games and sports.
3. Prepare an album on some communicable diseases in your locality and suggest solution for the same.
4. Plan a state level sports and cultural meet and prepare a programme list.
5. Visit one or more schools, ask the Physical Director about the concept of Physical stamina and fitness. Compare and contrast with their concept with that of Yogic concept and its relevance to the present day scenario.

SUGGESTED READINGS:

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Swami Satyananda. (1999). Four chapters on freedom. Commentary on yoga sutras of patanjalisaraswathi. Bihar school of Yoga, Munger.

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COURSE CODE: FEPCE**ENVIRONMENTAL EDUCATION****Objectives:**

At the end of the course, the student-teachers will be able to:

- realise the importance of environmental education;
- list out the natural resources and its associated problems;
- understand the impact of different types of pollution and its management;
- appreciate the policies and programmes initiated to protect the environment;
- narrate the environmental movements in India;
- appreciate the international initiatives to protect the environment;
- realise the importance of management and protection of environment;
- develop curriculum for environmental education;
- understand the impact of science and technology on environment; and
- adopt the environmental ethics in day-to-day life.

Unit 1 - Environmental Education

Concept and Meaning of Environment – Segments of the Earth – Components of Environment –Types of Environment – Environmental Education: Backdrop of Environmental Education – Focal Aspects of Environmental Education – Functions of Environmental Education – Goals and Objectives of Environmental Education – Need and Importance of Environmental Education – Core Themes of Environmental Education – Scope of Environmental Education.

Unit 2 - Natural Resources, Problems and Solutions

Natural Resources: Land Resources, Prevention of Soil Erosion – Forest Resources, Prevention of Deforestation – Water Resources, Prevention of Water Scarcity – Mineral Resources, Prevention of Exploitation of Minerals – Food Resources, Food Crisis and Increasing Food Production – Energy Resources – Alternative Energy Resources.

Unit 3 - Environmental Pollution, Hazards and Disaster Management

Environmental Degradation – Types of Environmental Degradation – Environmental Pollution –Environmental Pollutants – Types of Pollution: Soil/Land Pollution, Water Pollution, Air Pollution, Radiation/Nuclear Pollution, Light Pollution, Solid Waste Pollution – Prevention and Management of Pollution – Hazards and Disaster Management: Earth Quake, Land Slides, Volcanic Eruption, Forest Fire, Tsunami, Cyclone, Flood - Nuclear and Industrial Accidents – Oil Spill.

Unit 4 - Environmental Problems, Policies and Programmes

Major Environmental Problems: Global Warming, Green House Effect, Climate Change, Ozone Layer Depletion, Acid Rain, Extinction of Flora and Fauna – Environmental Policies and Programmes in India: Environmental Legislation, Acts, Rules, Notifications and Amendments.

Unit 5 - Environmental Movements and Sustainable Development in India

Environmental Movements in India: Bishnoi Movement - Chipko Movement - Narmada Bachao Andolan - Silent Valley Movement - Baliapal Movement – Ganga Action Plan – Swachh Bharat Mission - Environment for Sustainable Development: Symptoms of Non-Sustainability - Principles of Sustainable Development - Strategies for Sustainable Development - India's Initiation for Sustainable Development.

Unit 6 - International Efforts for Environmental Protection

Environmental Issues and Global Community: Stockholm Conference (1972) – Brundtland Commission (1983) – The Earth Summit or Rio Conference (1992) – Kyoto Conference (1997) – Copenhagen UN Climate Change Conference (2009) – Doha Climate Change Conference (2012).

Unit 7 - Management and Protection of Environment

Environmental Management: Need, Dimensions and Approaches – Impact of Human Activities on Environment – International NGOs and Environmental Protection: Environmental Foundation for Africa, World Wide Fund for Nature, Conservation International, Green Peace – International Union for Conservation of Nature (IUCN) - Environmental Protection Strategies initiated in India: National Green Tribunal – Central and State Pollution Control Board.

Unit 8 - Environmental Education in School Curriculum

Status of Environmental Education in School Curriculum – Environmental Education at different levels of School Education -- Innovative Methods of Teaching Environmental Education – Problems faced in Teaching Environmental Education – Role of UNEP, CEE and NCERT in Promoting Environmental Education.

Unit 9 - Impact of Science and Technology on Environment

Science and Technology: Advantages and Disadvantages – Impact of Science and Technology on Environment, Natural Resources, Health and Community – Role of Science and Technology on Environmental Protection and Environmental Sustainability – Role of Media in Protecting the Environment.

Unit 10 - Environmental Ethics

Emergence and Importance of Environmental Ethics – Principles of Environmental Ethics – Environmental Ethics and Human Values – The Core Aspects of Promoting Environmental Ethics.

Suggested Activities:

1. Identify any 10 plants in and around your institution and write a brief report on them.
2. Suggest the means and methods for a clean and safe environment of your locality.
3. Prepare a time-line chart on the environmental policies and programmes of India.
4. Prepare a scrap book on issues related to environment.
5. Prepare a case study report on the effects of pollution.

Suggested Readings:

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17. Singh, S.R. (2012). *Environmental education and sustainable development*. New Delhi: A.P.H. Publishing Corporation.
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19. Stapp, W.B., et al. (1969). The Concept of Environmental Education. *The Journal of Environmental Education* 1(1):30-31.
20. Suresh Chandra Paachuri & Pradeep Kumar. (2013). *Environmental education*. New Delhi: A.P.H. Publishing Corporation.
21. Trivedi, P.R. (2011). *Environmental education*. New Delhi: A.P.H. Publishing Corporation.

Web Resources:

22. <http://www.epa.gov/sustainability/basicinfo.htm>
23. <http://www.conserve-energy-future.com/current-environmental-issues>
24. <http://indiatoday.intoday.in/story/10+most+powerful+movements/1/22812.html>
25. www.unesco.org/shs/ethics
26. www.ewindia.com/internationalconferencesonenvironmenthtml/
27. http://en.wikipedia.org/wiki/Environmental_education
28. <http://www.yourarticlelibrary.com/environment/forest/forest-resources-in-india-use-over-exploitation-causes-and-effects/28196/>
29. <http://www.yourarticlelibrary.com/environment/the-importance-of-natural-resources-of-planet-earth/9914/>
30. http://wwf.panda.org/about_our_earth/blue_planet/problems/pollution
31. <http://www.brighthub.com/environment/science-environmental/articles/92943.aspx>

COURSE CODE : FEPCI**INFORMATION AND COMMUNICATION TECHNOLOGY IN EDUCATION****OBJECTIVES:**

At the end of the course, the student-teacher will be to

- acquire knowledge about new horizons in ICT;
- understand the concept of Information and Communication Technology;
- understand the capacities to handle today's and tomorrow's technologies;
- utilize the social network sites in education;
- comprehend communicative skills and effective classroom interaction;
- attain the knowledge about of E-learning in education;
- appreciate the use of multimedia and web content for teaching learning;
- use ICT educational institutions for keeping their records;
- analyse the critical issues in ICT; and
- develop multimedia knowledge for teaching and learning.

Unit – I: INFORMATION AND COMMUNICATION TECHNOLOGY

ICT: Concept, Objectives, Need and Importance of ICT, Characteristics and Scope of Information and Communication Technology.

Unit – II: NEW HORIZONS IN ICT

Recent trends in the area of ICT - interactive video-Interactive White Board- video-conferencing –M-learning, Social Media- Community Radio: Gyan Darshan, Gyanvani, Sakshat Portal, e-Gyankosh, Blog, MOOC, Whatsapp, Facebook, Twitter etc.-Recent experiments in the third world countries and pointers for India with reference to Education.

Unit – III: COMMUNICATION AND INTERACTION

Communication - Concept, Elements, Process, Barriers and nature - Types of classroom communication-verbal, non - verbal classroom communication- its barriers and solutions.

Unit – IV: ICT ENRICHED LEARNING EXPERIENCES

Application of ICT for Enriching Classroom Experiences – Application and use of Multimedia Educational Software for Classroom situations – Use of Internet based media for teaching and learning enrichment – Project based learning using computers, Internet and Activities – Collaborative learning using group discussion, projects, field visits, blogs, etc.

Unit - V: ICT IN EDUCATION

E-learning: Meaning, Advantages and Disadvantages – Open Educational Resources: Concept and Significance - Internet and Education, Critical Issues in Internet usage – Authenticity, Addiction, Plagiarism, Ethical and Legal Standards.

Unit VI: INTERNET AND ITS APPLICATIONS

Introduction - history of the internet- understanding WWW- web browsers - favourites and bookmarks - kinds of information available - parts of internet, searching the net, researching on the net.

Unit -VII: CONCEPT, CHARACTERISTIC OF MULTI - MEDIA TECHNOLOGY AND INNOVATIONS IN TEACHING AND LEARNING

Concept and Characteristics of Multi-media Technology - Multi-media packages in teacher training - Multi-media laboratory - need for multi-media laboratories in India - functions of multimedia laboratory - setting up of multi-media laboratory in class rooms - Personalized System of Instruction(PSI) - Meaning and concept, origin and growth of PSI- Current status and Research on PSI - problems involved in using PSI in India - Learner Controlled Instruction (LCI), Meaning and Concept of LCI - Advantages and Limitations of LCI.

Unit – VIII: ICT IN EDUCATIONAL INSTITUTIONS

Use of ICTs to simplify record keeping, information management in education administration – ICT infrastructure – automated and ICT managed school process – school management information system(school MIS) – learning management systems – timetable – student record systems – library systems – finance systems.

Unit- IX: ORGANIZING AND LEARNING THROUGH ICT

Digital Story Telling - Combining media to tell a story – Scripting; Creating Photo essays and video documentation as a source of information and a learning process - Framework for Creation of Learning resources- Concept mapping - Developing a topic for a class room - Learning outcomes - Activity based learning.

Unit – X: ICT IN EVALUATION

ICT in Evaluation – purposes and techniques of evaluation - Scope of ICT in evaluation - Data analysis – look at data, read and make meaning – Graphs - Exploring Sources of data - Evaluation of Data – Communicating data and data analysis.

SUGGESTED ACTIVITIES:

1. Use various social networks in teaching and learning and report their effectiveness on learning of the students.
2. Prepare communication module on any one topic and analyse its effectiveness for student learning.
3. Enrichment of the classroom situation through multimedia package on any one topic.
4. Submit a report on critical issues in utilization of internet among learners.
5. Seminar on impact of ICT an Educational institutions.
6. Prepare various types of graph.

SUGGESTED BOOKS FOR READING:

1. Aggarwal, J. C. (2000). Innovations in educational technology. New Delhi: Vikas Publishing House.

2. Aggarwal.D.D.(2004). Educational technology. New Delhi: Sarup Publishing House.
3. Aggarwal, J. C. (2013). Modern in educational technology. New Delhi Black Prints.
4. Bharihok, D. (2000). Fundamentals of information technology. New Delhi: Pentagon Press.
5. Bhattachary, S.P. (1994). Models of teaching. Regency Publications.
6. Byran, P. (1997). Discover the internet comdex computer. New Delhi: Dream Tech Publishing.
7. Conrad, K. (2001). Instructional Design for Web based Training. HRD Press
8. Crouton, T. E. (1962). Programmed learning and computer based instruction. New York:
9. Edwards, F. B. (1973). Teaching machines and programmed. New York: McGraw Hill Book.
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16. Saxena, S. (2000). A First course in computers. New Delhi: Vikas Publishing House Pvt.Ltd.

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