

SEMESTER – II

Instructional hours per Subject : 90 (Theoretical Discourses – 60 & CE – 30 hours)

Perspectives in Education/Core Subjects:

EDU-06 : Education in Indian Society.

EDU-07 : Perspectives of Learning and Teaching.

EDU-08 : Assessment in Education.

Curriculum and Pedagogic courses/Optional subjects:

EDU-09. 1-13 : Curriculum and Resources in Digital Era:Education.

EDU-10. 1-13 : Techno-Pedagogic Content Knowledge Analysis:

EDU - 06: EDUCATION IN INDIAN SOCIETY

Hours to transact: 90 hrs (Theoretical Discourses – 60 & CE- 30)

Objectives

- To Develop an understanding of the evolution of education in Indian society
- To identify the role education in national development
- To recognize initiatives in modern Indian education
- To analyse the challenges in Indian education and the role of teacher in the changing scenario
- To familiarise with the emerging trends of education

Contents:

UNIT 1: MILESTONES IN INDIAN EDUCATION (35hrs)

UNIT II EDUCATION FOR ECONOMIC AND NATIONAL DEVELOPMENT (10hrs)

UNIT III :INITIATIVES IN INDIAN EDUCATION (20hrs)

UNIT IV: CHALLENGES AND TRENDS IN INDIAN EDUCATION (25 hrs)

UNIT 1: MILESTONES IN INDIAN EDUCATION (35 hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To develop an understanding of the evolution of education in Indian society 2. To acquaint with existing educational policies and commissions in India 3. To understand changes of education system in Kerala	<ul style="list-style-type: none"> • Dravidian education- social structure- literature-Institutions for scholastic, recreational and legal functions- role of 'salai 'in higher education • Vedic education-characteristics and curriculum- significance of Upanishad in maintaining world peace and sustainable development - vidya and vaidya, two pillars of a civilized society. • Buddhist education- aim of education and curriculum- • Significance of non violence and attitude 	Historical method Integrating ICT Lecture-discussion e- learning Document analysis Historical method	<ul style="list-style-type: none"> • Role Performance Analysis in group Discussion • Involvement in Debates • Seminar Presentations • Assignments • Internal Test

	<p>against materialistic life style.</p> <ul style="list-style-type: none"> • A brief account on history of Indian education during British period • Education in post independent India: Radhakrishnan Commission (1948) Secondary Education Commission (1952-54) Kothari Commission report (1964-66) New Education Policy 1986 • Evolution of education in Kerala (Ancient to modern period) 	and document analysis	
--	---	-----------------------	--

Reference

- Naik, J.P. (1998). The Education Commission and After. New Delhi: Publishing Corporation.
- Sripathi, V. and Thiruvengadam, A.K. (2004), "India: Constitutional Amendment Making The Right to Education a Fundamental Right", *International Journal of Constitutional Law*, 2 (1): 148–158, Oxford University Press
- Report of Secondary Education Commission. Kothari D.S. (1965). New Delhi: Ministry of Education.
- Govt. of India (1986). National Policy on Education, Min. of HRD, New Delhi.
- Govt. of India (1992). Programme of Action (NPE). Min of HRD.
- National Curricular Framework-2005 , 2009
- Right to Education Act -2009
- Knowledge Commission reports 2006, 2007, 2009
- UNESCO reports on Teacher education
- *Learning without Burden*, Report of the National Advisory Committee. Education Act. Ministry of HRD, Department of Education, October, 2004.
- <http://www.gktoday.in/rashtriya-ucchatar-shiksha-abhiyan>
- UNESCO reports on Teacher education
- *Learning without Burden*, Report of the National Advisory Committee. Education Act. Ministry of HRD, Department of Education, October, 2004.
- <http://www.gktoday.in/rashtriya-ucchatar-shiksha-abhiyan>

UNIT 2: EDUCATION FOR ECONOMIC AND NATIONAL DEVELOPMENT (10hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To identify the relationship between education and national development 2. To understand the role of IPR in national development	<ul style="list-style-type: none"> • Social Indices of National Development • Education as an investment- Share of GDP to Education • ‘Educated unemployment’- Causes and Remedies • Education an instrument for intellectual property and inventions and discoveries for the welfare of the society- (IPR)- Industrial property rights- copy rights and related rights 	Meaningful verbal expression Document analysis Panel Discussion Debates Seminar	<ul style="list-style-type: none"> • Role Performance Analysis in group Discussion • Extent of awareness on contemporary educational events

Reference

- Amirish Kumar Ahuja. (2007).Economics of education. Authors Press
- Jagannath Mohanty (1998). Modern Trends in Indian Education. New Delhi: Deep and Deep publications
- Humayun Kabir (1951). Education in New India. London: George Allen and Unwin Ltd.
- Subash Chandra Roy.(2009) Lecture on Intellectual property law. Chandigarh National university, Patna
- Sharma. R.A. (2007). Economics of education. Surya Publication
- <http://knowledgecommission.gov.in/>

UNIT 3 : INITIATIVES IN INDIAN EDUCATION(20 hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To familiarize withthe functions of state and central Apex bodies of educationto familiarize constitutional goals pertaining toeducation	<ul style="list-style-type: none"> • Programmes and Schemes - DPEP,SSA,RMSA, RUSA • Apex bodies- CABE,NCERT,SCERT, DIET, UGC, NCTE, NAAC, NUEPA, NKC • Constitutional Goals - Articles of Indian Constitution Pertaining to Education – 	Debates Lecture discussion Documentation and discussion	<ul style="list-style-type: none"> • Performance in debates • Seminar presentations • An extension activity related to the field of reference may be conducted

	<p>Preamble.</p> <ul style="list-style-type: none"> • Article 21 A, Article 14, Article 15, Article 30, Article 45, Article 46, Article 41, Article 51 A, Article 350A, Article 351 • Right to Education Act 2009 		
--	---	--	--

Reference

- Entwistle, N.(1990). Hand book of educational ideas and practices. London: Roputledge
- Mukopadhyaya et.al.(2008). Globalization and challenges for education. NIEPA. Shipra Publication
- Kohli, V.K. (1987). Indian Education and Its Problems. Haryana: Vivek Publishers.
- NCERT (1986). School Education in India – Present Status and Future Needs, New Delhi.
- Knowledge Commission reports 2006, 2007, 2009

UNIT 1V: CHALLENGES AND TRENDS IN EDUCATION (25 hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
<ol style="list-style-type: none"> 1. To analyze the challenges of Indian Education 2. To synthesis the significance of human rights education and peace education 3. To keep awareness on futurology of education 	<ul style="list-style-type: none"> • Current Problems of Indian education – Primary- secondary- higher education • Population Education – Need, Trends in Demography, Population explosion and adverse effects • Human Rights education- Meaning and significance • Peaceful coexistence and need for peace education • Inclusive class room –challenges with special reference to child in need and care of protection and child in conflict law. • Futurology of education 	<p>Brain storming</p> <p>Debates</p> <p>Lecture- discussion</p> <p>ICT</p>	<ul style="list-style-type: none"> • Analysis in group Discussion • Extent of awareness on contemporary educational events

Reference

- Agarwal. J.C. (2006). Education for values, Environment and Human Rights. Shipra publications . New Delhi
- Dyakara Reddy. D. & Rau.(2007). Value education. Discovery publishing House. New delhi
- Dhananjaya Joshi.(2006). Value education in global perspectives, Lotus Press
- Yogendra Singh.(2007). Modernisation of Indian tradition. Rawat publication. New Delhi

EDU - 07 : Perspectives of Learning and Teaching

(Theoretical Discourses – 60 & CE – 30 hours)

Objectives: To enable the student teacher to:

1. To understand the concept, nature and factors influencing learning
2. To gain an insight into the mental processes involved in learning
3. To develop an understanding of the process of learning through various theoretical perspectives
4. To familiarise the cognitive functions of learning
5. To conceptualise the basics of neuroscience
6. To understand motivation and its educational significance
7. To develop an understanding of the concept and areas of Individual difference.
8. To explain the concept and types of 'exceptional children'.
9. To conceptualise Learning Disability and inclusive education
10. To develop skills to educate students with special needs.

Contents :

- **UNIT I NATURE OF LEARNING**
- **UNIT II COGNITIVE PROCESSES IN LEARNING**
- **UNIT III THOERIES OF LEARNING**
- **UNIT IV INDIVIDUAL DIFFERENCES IN LEARNING**
-

UNIT I NATURE OF LEARNING 20hours (15T+ 5P)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
<ol style="list-style-type: none"> 1. To understand the concept, nature and factors influencing learning. 2. To develop an understanding of the process of learning 3. To familiarise the concept of memory and forgetting 4. To conceptualise the role of motivation in learning 	<ul style="list-style-type: none"> • Meaning, Definition & Characteristics of learning, Factors affecting learning - learner, Method and Task variables, Learning curve, Plateau in learning, Study habits- Concept and methods, Transfer of Learning. • Motivation- Concept, Types, strategies & educational Implications. Theory of 	<p>Lecturing</p> <p>Group discussion on factors affecting learning</p> <p>Brainstorming on method and task</p>	<ul style="list-style-type: none"> • Test paper • Assignments • Practicum • Presentation in seminars • Performance based assessment

5. To familiarise the concept of achievement motivation	motivation- Abraham Maslow, Achievement motivation	variables of learning Field study on intrinsic and extrinsic motivation Construction of learning curve	
---	--	--	--

Reference

- Gates, A.S and Jersild, A.T (1970) Educational Psychology, New York :Macmillian.
- Aggarwal, J.C (1994) Essentials of Educational Psychology New Delhi :Vikas Publishing House
- Dandapani, S. (2007), A Text Book of Advanced Educational Psychology; New Delhi: Anmol Publications Pvt. Ltd.

UNIT II COGNITIVE PROCESSES IN LEARNING 20hours (15 T+ 5 P)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To familiarise the cognitive processes 2. To conceptualise cognitive capacities 3. To understand the relevance of cognitive skills in learning 4. To familiarise the basic concepts of cognitive neuroscience	<ul style="list-style-type: none"> • Sensation and Perception- factors, laws, Concept formation, Illusion • cognitive functions -Thinking, Reasoning- Problem solving and • Metacognition • Memory- Concept; Types & Strategies to develop memory, • Forgetting- causes and problems • Cognitive neuroscience- basic concepts and relevance in learning 	Lectures Preparation of a Concept map Group discussion on strategies for improving Memory, Reasoning and Problem solving Memory test	<ul style="list-style-type: none"> • Test paper • Performance based assessment • Practical work

		Seminars Discussion on the relevance of cognitive neuroscience	
--	--	---	--

Reference

- Hughes, A.G & Hughes, E.H(2005) Learning and Teaching , New Delhi, Sonali Publications
- Hunt, R. Reed & Ellis, Henry C.(2007) Fundamentals of Cognitive Psychology, New Delhi, Tata McGraw-Hill Publishing Company
- Skinner .E.C(2003) Educational Psychology, New Delhi, Prentice Hall of India Pvt.Ltd.

UNIT III THEORIES OF LEARNING 25 hours (15T+10P)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To develop an understanding of the process of learning through various theoretical perspectives 2. To familiarise behaviouristic, constructivist and information processing approaches in learning 3. To compare the different approaches in learning 4. To develop learning strategies based on different perspectives	<ul style="list-style-type: none"> • Behaviourist approach- Thorndike, Pavlov and Skinner. • Cognitive approach- Gestalt, Kurt Lewin, • Constructivist approach- Individual and Social- Piaget, Bruner &, Vygotsky. • Social learning theory- Albert Bandura • Gagne’s hierarchy of learning. • Expository learning- Ausubel • Information processing approach to learning- Atkinson and Shiffrin 	Lectures Critical evaluation of different approaches - Use peer tutoring technique- List suitable learning activities based on constructivist approach Cooperative and	<ul style="list-style-type: none"> • Performance in activities • Test paper • Group discussion • Assignments

		Collaborative Learning activities Debate on Behaviourism vs constructivism Psychology lab experiments (any two)	
--	--	---	--

Reference

- Mathur.S.S(2007) Educational Psychology, Agra-2, VinodPustakMandir
- Schunk, D.H (2011); Learning Theories: An Educational Perspective, India: Pearson
- Sternberg, R.J.(2006), Cognitive Psychology (4th ed.) U.K.: Thomson Wardsworth

UNIT IV INDIVIDUAL DIFFERENCES IN LEARNING 30 Hours (20 T+ 10P)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To develop an understanding of the concept and areas of Individual difference. 2. To equip the teacher for understanding the learner in the context of their socio cultural and educational background 3. To familiarize the specific factors leading to individual difference. 4. To develop skills to educate students with special needs.	<ul style="list-style-type: none"> • Concept of Individual Differences- Areas of individual Differences - Interest, Attitude and Aptitude • Persons with disability- Types of disability – congenital, acquired, physical, mental and sub-categories: developmental delays, degenerating conditions, sensory, neural, orthopaedic, multiple disabilities. • Models of Education for children with special needs: Special Schools, 	Lectures Field visits Institutional survey Identification of exceptional categories Design of learning	<ul style="list-style-type: none"> • Test paper • Assignments • Practical activities • Field visit reports • Performance assessment • Observation reports • Intervention activities • Practicum •

<p>5. To familiarise inclusive education</p> <p>6. To gain experiential learning in dealing special categories of students</p>	<p>Integrated Education, Inclusive Education.</p> <ul style="list-style-type: none"> • Understanding the educational needs of Exceptional learners - Gifted and Slow Learners, Underachiever, Mentally Challenged, ADHD, Learning Disability- Dyslexia, Dysgraphia, Dyscalculia and Dyspraxia, Autism, Deafness, Blindness, Deaf-blindness. • Understanding accommodations, accessibility, Assistive technology in the educational environment. • Inclusive education- National Policy and Acts RCI(1992),PWD (1995), NTA (1999), RTE (2012) 	<p>strategies for exceptional categories</p> <p>Seminars/ Discussions</p> <p>First hand experience with exceptional learners and learning disabled children</p> <p>Direct experience in special schools</p> <p>Screening of movies that have first hand educational experiences.</p>	
--	---	--	--

Reference

- Ker. C (1998) Exceptional Children, New Delhi, Sterling Publishers.
- Rao KS, Rao DB (2005) Gifted and Talented Education, Sonali, New Delhi
- Sharma P.L (1988), A Teachers Hand Book on IED Helping Children with Special Needs NCERT, New Delhi.
- **Balsara, Maitreya (2011) Inclusive Education for Special Children: New Delhi: Kanishka Publishers and distributors**
- Allport, G.W, (1960). Personality: A psychological Interpretation .NewYork: Henry Holt and Company .
- Anastasia, Anne (1982). Psychological Testing NewYork: Mc Millan Publishing Company.
- Baron, Robert A, (2003). Social psychology (10th ed). New Delhi :Prentice Hall of India

- Baron, Robert A, (2003). Psychological (3rd ed). New Delhi, 110092 :Prentice Hall of India.
- Benjamin, W.B., (1985). Hand book of Human Intelligence:Theories, Measurement and Application John, London : Wiley of Sons Inc.
- Beveridge, WIB, (1980). Seeds of Creativity London : Heinemann Educational Book Ltd.
- Carroll, H.A (1984) Mental Hygeine New York, Prentica Hall Publishing Co.
- Crow, L.A and Crow A Educational Psychology (1973) New Delhi : Eurasia Publishing House.
- Duric, L (1990)Educational Psychology New Delhi : Sterling Publishers.
- Entwistle,N.J.(1990). Handbook of educational ideas and practices.London:Routledge
- Ewen, R.B (1980)An Introduction to theories of Personality New York : Academic Press.
- Fisher, Ronald j. (1982). Social Psychology, An Applied Approach. New York : St. Martins Press.
- Hartney, Elizabeth (2008): Stress Management for teachers; U.K: Continuum
- Jangira, N.K., etal (1991). Functional Assessment Guide. New Delhi : NCERT.
- Kinchelore, J.L., & Horn, R.A (Eds.) (2007) The Praeger Handbook of Education andPsychology; India: Praeger (vol. 1,2,3,&4)
- Kochar, S.K (1993), Educational and Vocational Guidance in Secondary Schools. New York : Sterling Publishers.
- Kuppuswami, B. (1967). An Introduction to Social Psychology. Bombay :AsiaPublishing House.
- Martin, garry and Pear, Joseph (2003) .Behaviourmodification : what it is and How to do it (7th Ed.). New Delhi: Prentice Hall of India . 110 092.
- Moghaddam, F.M. (2007) Great Ideas in Psychology: A Cultural and Historical Introduction; India: Oxford; One World.
- Musser, P.H, Conger, S and Kagar, P (1964) Child Development and Personality, New York : Harper Row
- Personality Classic Theories & Modern Research.New Delhi, Pearson Education
- Reilly, P.R & Levis, E (1983) Educational Psychology New York :Macmillian Publishing Co Ltd.
- Sindhu, I.S., (2013); Educational Psychology: India
- Umadevi, M.R.,(2009) Educational Psychology: Theories and Strategies for Learning and Instruction, Bangalore, Sathkruthi Publications

Websites

- <http://www.libraries.psu.edu/>
- <http://www.teacher.net>
- www.moodle.org
- <http://teamwork.sg/teamwork/schoolportal.aspx>
- <http://www.enhancelearning.co.in/SitePages/Index.aspx>
- <http://www.e-learningforkids.org/courses.html>
- <http://en.wikipedia.org/wiki/Wiki>
- <http://www.webopedia.com/welcomead/>
- <http://www.filehippo.com/>
- <http://www.padtube.com/Windows>

EDU - 08 : ASSESSMENT IN EDUCATION.

(Theoretical Discourses – 60 & CE – 30 hours)

Objectives:

The student teachers will be able to:

- Understand the concept and nature of Assessment and Evaluation in education
- Understand the role of Assessment and Evaluation in teaching-learning process
- Examine the contextual roles of different forms of assessment in schools
- Acquaint with the new evaluation practices in education
- Realize different dimensions of learning
- Familiarize with various assessment procedures, tools and techniques
- Develop an investigatory attitude through a proper understanding of the paradigms of research
- Develop the capability for research embedded instruction
- Integrate action research practices in the teaching-learning context
- Develop ability in analyzing and interpreting assessment data
- Understand the methods of finding important statistical measures and representing data using graphs

Contents

UNIT I: Perspectives on Assessment and Evaluation (25 hrs)

UNIT II: Tools and Techniques to assess Learner's performance (20 hrs)

UNIT III: Basic Statistics for Analysis and Interpretation of Assessment data (25 hrs)

UNIT IV: Introduction to Research in Education (20 hrs)

UNIT I: Perspectives on Assessment and Evaluation(25 hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
<ol style="list-style-type: none"> 1. To Distinguish clearly between assessment and evaluation 2. To state the purposes of evaluation and to enlist various types of evaluation 3. To acquaint the students with taxonomy of instructional objectives 4. To identify the factors to be considered for successful assessment 5. To familiar with the Current practices in evaluation 	<ul style="list-style-type: none"> • Assessment and Evaluation in Education - Purposes of Evaluation • Types of evaluation-Formative and Summative, Outcome Evaluation, Process Evaluation, Self Evaluation, Peer Evaluation, Product Evaluation, External Evaluation, Internal Evaluation and Objective based Evaluation. • Brief introduction to Instructional objectives as the basis of scientific evaluation-Bloom’s taxonomy of educational objectives; Domains of learning – cognitive, affective and Psycho motor. • Factors to be considered for successful assessment • Current practices in assessment and evaluation –CCE- concept, need and relevance, Grading system- concept, types-absolute grading, direct grading and relative grading, merits and demerits. Grade Point Average, Cumulative Grade Point Average, Weighted average and weighted score/point. Classification of learners according to their level of performance in Grading system (By giving letter grades such as: A+, A, B+,B etc.) 	<p>ICT enabled group discussion Lecture-discussion Group Discussion</p> <p>Meaningful verbal Expression</p> <p>Collaborative interaction</p> <p>Lecture and Discussion</p>	<ul style="list-style-type: none"> • Document Analysis • Field visit reports • Class test • Role Performance • Analysis in group Discussion • Seminar Presentations

UNIT II: Tools and Techniques to assess Learner's Performance (20 hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
<ol style="list-style-type: none"> 1. To understand different techniques of assessment like interview, self-reporting and testing and their applications in the field of education. 2. To familiarize with various tools of assessment and develops skill in applying in the field of research 3. To understand the qualities of a good evaluation tool 4. To understand Norm Referenced and Criterion referenced Evaluation 5. To develop the ability to construct the tools such as Diagnostic Test and Achievement Test 6. To familiarize with the relevance of online Examination, portfolio and rubric assessment 	<ul style="list-style-type: none"> • General Techniques of Assessment- Observation, projects, assignments, worksheets, practical work, seminars and reports, Interview, Self reporting. • Tools of Assessment- tests, checklist, rating scale, cumulative record, questionnaire, inventory, schedule, anecdotal record-concept, merits, demerits - relevance in the field of research • Characteristics of a good evaluation tool- validity , reliability, objectivity and practicability • Norm-referenced tests and Criterion-referenced tests. • Diagnostic Test and Achievement Test- Concept, Purpose and Distinction between the two tests, Steps involved in the construction of an Achievement test and Diagnostic test, Types of items-Objective type, Short answer type and Essay type, Item analysis-concept, Teacher made and Standardized Achievement tests. • Online examination/Computer based Examination, Portfolio assessment and Evaluation based on Rubrics 	<p>Lecture Cooperative Learning</p> <p>Discussion</p> <p>Collaborative Interaction in Debates</p> <p>Working on online Resources Group discussion and Presentation</p> <p>Discussion & Presentation</p>	<ul style="list-style-type: none"> • Initiation and performance in dramatization • Role Performance Analysis in group Discussion • Involvement in Debates • Seminar Presentations • Class test • (Practicum-Development of any one Evaluation tool)

UNIT III: Basic Statistics for Analysis and Interpretation of Assessment data (25 Hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To understand the need, importance and meaning of Statistics 2. To familiarize the relevance of statistics in analyzing data 3. To understand the meaning and nature of data 4. To tabulate the data in a meaningful and systematic way 5. To appreciate the importance of the organization of data 6. To understand the advantages of graphical representation of data 7. To represent data using appropriate graphic representation and interpret accordingly	<ul style="list-style-type: none"> • Role and importance of statistics in analyzing assessment data, Population and Sample • Data, Types of Data- Primary & Secondary, Quantitative & Qualitative • Classification of Data, Frequency Table (Grouped & Ungrouped) • Graphical Representation of Data- need and importance, Representing data using Bar Diagram and Pie Diagram, Histogram, Frequency Polygon, Frequency Curve and Ogives, Interpretation of graphical representations. 	Narrative expression in small group Group Discussion Meaningful verbal Expression Active learning process, Advance organizer Approach Techno- lab activities & Individual assignments	<ul style="list-style-type: none"> • Evaluation based on documentation. • Role performance analysis in group discussion • Participant observation • (Practicum - on Graphical Representation of any Data)
8. To find out different measures of central tendency 9. To select the most appropriate measures of central tendency for the treatment of data 10. To find out different measures of Dispersion 11. To select the most appropriate measures of dispersion for the treatment of data 12. To familiarize with the use of correlation for data analysis 13. To understand the method of calculating correlation coefficient using rank difference method	<ul style="list-style-type: none"> • Descriptive Statistical Measures : Measures of Central Tendency- Mean, Median, Mode- concept and methods of finding each measure and when to use each measure. Measures of Variability/Dispersion- Range, Mean Deviation, Quartile Deviation, Standard Deviation- concepts and methods of finding each measure and When to use each measure. • Correlation- meaning and importance, Concept of Coefficient of correlation, Types of Correlation- Positive, Negative, Zero and Perfect Correlation, Rank Difference Method of calculating Coefficient of correlation, interpretation of correlation. 	Active learning Process Computation Mathematical problem solving Class wise discussion through Lecture. Presentation Narrative expression in small group Problem solving	<ul style="list-style-type: none"> • Evaluating the product and process

UNIT IV: Introduction to Research in Education (20 hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
<ol style="list-style-type: none"> 1. To understand the need and importance of research in general and educational research in particular 2. To realize the relevance of hypothesis formation and the skill to form different forms of hypothesis 3. To understand the nature of different types of research and their applications 4. To familiarize with various types of research and their applications 5. To get acquainted with planning and developing of action research 6. To understand how to carry out action researches and prepare the reports 7. To familiarize with planning and developing projects 8. To understand how to carry out Projects and prepare the reports 	<ul style="list-style-type: none"> • Research- meaning, characteristics, functions of research ,characteristics of a good researcher, Teacher as a researcher, need and importance of Educational research. • Hypothesis- meaning, relevance/role/functions, forms of hypothesis-null form, prediction form, question form and statement form • Types of research (based on purpose only)- basic/fundamental research, applied research and action research. • Action research- Need, scope, characteristics, Steps involved:- Problem identification, Defining and Analyzing the problem, Formulating and Testing action hypotheses and Preparing the report - and Advantages and Limitations of action research, Integrating action research practices -need and scope, Preparation of Action research reports. • Research Projects – Definition of a project, Steps involved:- Initiation (Providing/creating situations), Selection/Choosing, Planning/Designing, Execution, Evaluation and Recording/Reporting. Preparation of Project reports 	<p>Lecture-discussion ICT enabled class wise discussion</p> <p>Collaborative interaction</p> <p>Group Discussion</p> <p>Critical evaluation of need for educational research Lectures Group discussion</p> <p>Meaningful verbal Discourse</p> <p>Lectures Group discussion</p> <p>Collaborative Interaction</p>	<ul style="list-style-type: none"> • Role Performance Analysis in group Discussion • Class test • Seminar Presentations • Analysis in group Discussion • Class test

Reference

- Adamu S ,O and Johnson. T.C.(1975); *Statistics for Beginners*, Onibonoje Press.

- Adedayo. O .A. and Nwosu. N. (1996); *Elements of Social Science statistics*. Ijebu- Ode. Shebiolimo Press
- Adeniran. S.A.,Ojerinde and Olosunde. G.R.(2001); *Test, Measurement and Evaluation*. Oduniat Press.
- Araoye. M.O.(2003): *Research Methodology with Statistics for health and social sciences*.
- Awoyemi. M. O and Duarte. S.N. (2007): *Research Methodology in education*. Cape Coast: K.N.A.I. Ltd.
- Best, John.W and James.V.Kahn(2005), *Research in Education*. PHI Learning Private Limited. New Delhi:Boston, Hooughton Mifflin Company.
- Broudy, H. S., et al. (1973), *Philosophy of Educational Research*, New York, John Willey& Sons.
- Cohen, Louis (1976), *Educational Research in Classroom and Schools, A Manual ofMaterials and Methods*, New York, Harper and Row Publishers.
- Daramola. S.O. (1995): *Research Methodology in education: An Interdisciplinary Approach*. Universityof Ilorin. Library and Publication Committee
- Fajemidagba. M.O. (1995): *Research Methodology in Education: An Interdisciplinary Approach*. University of I l o r i n Library and Publication Committee.
- Fisher, R. A. (1936), *Statistical Methods for Research Workers*, Edinburg, Oliver and Boyd.
- Gardner, John(2012). *Assessment and Learning -2nd edition*. New Delhi: SAGE Publications India Pvt. Ltd.
- Herbert M. (1 9 9 5) . *Planning a Research: A Guide for Practitioners and 'trainees in the helping professional*. L o n d o n: C h a s s e 11 educational Limited.
- JnNurm(2003), *Research Reports*, London: Routledge Falmer
- Lindquist, E. F. (1963), *Design and Analysis of Experiments in Psychology and Education*.
- Lokesh Koul(2006), *Methodology of Educational Research*. Vikas Publishing House Private Limited. New Delhi.
- Mangal, S.K. & Na d Shubhra Mangal (2007), *Research Methodology in Behavioural Sciences*. New Delhi:PHI Learning Private Limited.
- Quinlan, Audrey M. A Complete Guide to Rubrics: Assessment Made Easy for Teachers, KDCollege(2012).USA:Rowman Littlefield Education.
- Singh, A.K. (2005), *Tests ,Measurements and Research methods in Behavioural Sciences*. Bharathi Bhavan Publishers and Distributers.
- Ogunniyi, M. B. (1984), *Educational Measurement and Evaluation*, Longman Nig. Mc. Ibadan.
- Okpalla P. M. et al (1999), *Measurement and Evaluation in Education*. Sticing – Horden Publishers (nig.) Ltd. Benin City. Inc.
- Sax, Gilbert (1979), *Foundations of Educational Research*, Engle Wood Cliffs N. J., Prentice Hall.
- Val, Klenowski.(2002). *Developing Portfolios for Learning and Assessment: Processes and Principles*. London. RoutledgeFalmer.
- Wyatt-Smith, Claire; Cumming, Joy (Eds.) (2009). *Educational Assessment in the 21st Century*. New Delhi: Springer.
- Zubizarreta ,John .(2009).*The Learning Portfolio: Reflective Practice for Improving Student Learning*. USA: Johnwilley and Sons. Inc
- www.springer.com/education+%26+language/journal/11092
- www.researchphilosophy.blogspot.com/
- www.katho3.people.wm.edu/
- www.adprima.com/measurement.htm
- www.cmu.edu/teaching/design/teach/rubrics.html.

EDU – 09.1: Curriculum and Resources in Digital Era : Malayalam Education.

(theoretical Discourses – 60 hours & CE – 30 Hours)

Objectives :

- To get acquainted with principles/concepts of curriculum construction, different types of curriculum.
- To get acquainted with National/Kerala curriculum framework, different types of curriculum etc.
- To understand concepts related community based teaching and learning
- To incorporate e- resources in the pedagogic content knowledge analysis of Malayalam
- To understand the basic theories/concepts/perspectives of language acquisition, Chomsky’s conceptions on language, the whole language approach etc.

Contents :

Unit – 1 : Curriculum Design in Malayalam Education .

Unit -2 : Community Based Teaching and Learning of- Malayalam.

Unit – 3 : E-Resources in Teaching & Learning of – Malayalam -

Unit – 4 : Research Inputs Malayalam Learning -

Unit – 5 : Researches in language and Language Learning -

Unit 1: Curriculum Design in Malayalam Education

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To get acquainted with principles/concepts of curriculum construction, National/Kerala curriculum framework, different types of curriculum etc.	<ul style="list-style-type: none"> • Principles of curriculum construction • Curriculum and Syllabus • General Approach on language learning in National/Kerala curriculum framework • Different concepts in curriculum construction: Activity oriented, Issue based, Problem based curricula. 	<p>Open discussion on the suitability of present day school curriculum</p> <p>Preparation of an essay on general approach on language learning in</p>	<ul style="list-style-type: none"> • Participation in discussion/Relevance of ideas • Essay

		National/Kerala curriculum frameworks	
--	--	---------------------------------------	--

Unit 2 Community Based Teaching and Learning of- Malayalam

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To understand concepts related community based teaching and learning	<ul style="list-style-type: none"> • Library – as a community resource centre • Importance -Different types School/Class/Subject libraries – ways for effective organization. • Importance of agencies like Kerala Sahitya Academi, Kerala Bhasha Institute etc. • Major Malayalam Book stores and publishers - DC Books, NBS, Mathrubhoomi etc. • Local text • Co operative and collaborative learning/teaching • Language labs 	Assignments Prepration of short notes Seminar presentations Design and development of language lab activities	<ul style="list-style-type: none"> • Assignment papers • Appropriateness of presentations • Variety and suitability

Unit 3 E-Resources in Teaching & Learning of - Malayalam

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To get familiarized with the e- resources for teaching/learning Malayalam 2. To incorporate e-resources in the pedagogic content knowledge analysis of Malayalam	<ul style="list-style-type: none"> • Applications for writing Malayalam - Google input tool etc. • Commercial typing software for Malayalam: ISM, iLEAp etc. • Design and development of Malayalam blogs. • Major useful sites for teaching and learning Malayalam. • Use of Social Networking sites in teaching and learning Malayalam language and literature • E- resources for teaching and learning Prose, Poetry and Grammar • 	Familiarisation session on applications/software/sites suitable for Malayalam teaching and learning Design and development of a blog for Malayalam class (group activity) Practicum	<ul style="list-style-type: none"> • Participation of students innovative ideas • Comprehensiveness

Unit 4 Research Inputs Malayalam Learning

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To understand the basic theories/concepts/perspectives of language acquisition, Chomsky's conceptions on language, the whole language approach etc.	<ul style="list-style-type: none"> • Recent researches in Malayalam Language and Literature • Action Research • Researches in language and Language Learning – New Perspectives • Language a biological triggered behavior • Language acquisition vs. Language learning. 	Seminar on conventional and new perspectives in learning language Preparation of short notes on LAD,	<ul style="list-style-type: none"> • Seminar paper/participation • Correctness of notes • Student participation

	<ul style="list-style-type: none"> • Language acquisition and cognitive development • The parameters of LAD and Universal Grammar • Chomsky on Language and thought • The whole Language Approach 	<p>universal Grammar</p> <p>Discussion on supplied reading materials.</p>	
--	---	---	--

Reference

- Anveshanangalkkuorukaippusthakam;

EDU- 10.1 :Techno Pedagogic Content Knowledge Analysis-Malayalam.

(Theoretical Discourses – 60 hours & CE – 30 hours)

Objectives :

- To get familiarized with TPCK and Personalised instructional strategies
- To get acquainted with the concept ‘ teacher as a techno pedagogue ‘
- To get familiarized with the concepts of networking in Malayalam Learning
- To understand concept of ‘models of teaching’ and to practice various models
- To get familiarized with the new global trends in Malayalam education.

Contents :

Unit – 1 : TPCK and Self Instructional Strategies (Teacher as a Techno-Pedagogue) - Personalised Instruction

Unit – 2 : Networking in Malayalam Learning.

Unit – 3 : Models of Teaching .

Unit – 4 : Global Trends in Malayalam Education .

Unit 1 TPCK and Self Instructional Strategies (Teacher as a Techno-Pedagogue)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To get familiarized with TPCK and Personalised instructional strategies	<ul style="list-style-type: none">• Techno Pedagogic Content Knowledge Analysis• Effective use of technology in the transaction of content• Personalised Instruction• Programmed Instruction : Linear, Branched• Instructional Modules• Computer Assisted Instruction - CAI,• Computer Managed Instruction-CMI	Discussion on reading materials given. Preparation of modules Workshop for the familiarization of CAI, CMI	<ul style="list-style-type: none">• Participation• Completeness and clarity• Involvement in the workshop• CE - Test

Unit 2 Networking in Malayalam Learning

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To get acquainted with the concepts of networking in Malayalam Learning	<ul style="list-style-type: none"> Major Malayalam blogs, facebook pages etc. for Malayalam Teaching and Learning Community extension activities Use of Malayalam Wikipedia- content generation. Use of Social networking sites in developing academic networks among teacher and students. Uses of YouTube 	<p>Active participation of students</p> <p>Opportunity to contribute innovative ideas</p> <p>Practical sessions based on blogs and other networking sources</p>	<ul style="list-style-type: none"> Participation Innovative ideas and suggestions Relating to the content- different ways practiced CE - Practicals (Two items)

Unit3 Models of Teaching

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To understand concept of 'models of teaching' and to practice various models	<ul style="list-style-type: none"> Basic concepts Concept attainment model. Synecotics Model Role Play Model Advance Organiser 	<p>Preparation of lesson plans based on models of teaching</p> <p>Demonstrations on models of teaching</p> <p>Practice sessions based on models</p>	<ul style="list-style-type: none"> Lesson plans Performance of the students CE - Subject Associated Activities

Unit 4 Global Trends in Malayalam Education

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To get familiarized with the new global trends in Malayalam education.	<ul style="list-style-type: none"> • Global advancement of web Malayalam • Online Libraries • Online periodicals • Online publications • Mass Media 	<p>Familiarisation online publications</p> <p>Discussion about online periodicals/ publications.</p> <p>Preparation of a list of online libraries</p> <p>Assignment/ Debate on mass media</p>	<ul style="list-style-type: none"> • Performance of the students • Discussions • Assignment paper/Participation and performance in debates

Reference

Prof. MK Prasad	Kerala Shaasthrasaahitya Parishad	
Bhashapadanavum Bhodhana shaastravum	Dr.SreeVrinda Nair N	DC Books Kottayam
Bhashapadanavum Sidhaanthangalum	Dr.SreeVrinda Nair N	DC Books Kottayam
Divaswapna	GijubhaiBhadeka	National Book Trust
EnganeMalayalattilBlogam	Baburaj PM	DC Books, Kottayam
Gadyarachana	Dr.CK Chandrasekharan Nair	Kerala Bhasha Institute
Gadyashilpam	CV VasudevaBhattathiri	Kerala Bhasha Institute
Kerala Panineeyam	AR RajarajaVarma	DC Books, Kottayam
KuttikalePadanathilSahayikkam	PK Abdul Hammed Karassery	DC Books, Kottayam
MalayalaBhashaBodhanam	CV VasudevaBhattathiri	Kerala Bhasha Institute
MalayalaBhashadyapanam	Dr.KSivarajan	Calicut University
MalayalaKavithapadhanamgal	K Sachidanandan	Mathrubhoomi Books
MalayalaSahithyaCharithram	Dr. KalpattaBlakrishnan	Kerala Bhasha Institute
MalayalaSahithyaCharithram	PK Parameswaran Nair	Sahithya Academy
MalayalaSahithyaNiroopanam	Dr. PanmanaRamachandran Nair	Current Books, Kottayam

MalayalaSahithyaVimarshanam	Dr. SukumarAzheekkode	DC Books, Kottayam
Mathrubhashabhodhanam:		
Micro teaching	Allen,D& Ryan, K	Adison Wesley, London
MumbilullaJeevitham	J Krishnamoorthi	DC Books, Kottayam
Nalla Malayalam	CV VasudevaBhattathiri	DC Books, Kottayam
NammudeBhasha	EMS Namboothiripad	Kerala Bhasha Institute
Padyapadhathi sidhaantham	Dr. Ravisankhar S. Nair	Kerala Bhasha Institute
ParivarthanonmughaVidhyabhyabyasamGuru	NithyachaithanyaYathi	NarayanaGurukulam, Varkala
PravanathakalumReethikalum.	Bindhu,C.M	Scorpio, Calicut
PrayogikaVyakaranam	Irinjayam Ravi	
PurogamanaVidyabhyaasachinthakal	PV Purushothaman	Kerala ShaasthrasaahityaParishad
Thettillatta Malayalam	Prof. PanmanaRamachandran Nair	DC Books, Kottayam
TirakkadhaRachana – KalayumSidhanthvum	Jose K Manuel	Current Books, Kottayam
Toto Chan	TetsukoKoriyoNagi	National Book Trust, Kerala
ShaasthrasaahityaParishad		
Tuition to Intuition	Dr. KN Anandan	Transcend, Malappuram
Ucharanamnannavan	Dr. VRPrabodhachandran	Kerala Bhasha Institute
VidhyabhyasathilViplavam	Osho	Silence, Kozhikkode
Vidyabhyaasachinthakal	AsisTharuvana	Olive, Kozhikkode
VidyabhyasaParivarthanattinoruAmugham		Kerala ShaasthrasaahityaParishad
VyakaranaMitham	SheshsgiriPrabhu	

Online Resources

<http://ml.wikipedia.org>
<https://www.facebook.com/groups/144983732246185>
<https://www.facebook.com/groups/paribhasha>
<http://www.keralasahityaakademi.org/>
<http://malayalambloghelp.blogspot.com/>
<http://www.topsite.com/best/malayalam>
<http://malayalam.kerala.gov.in/index.php>
http://malayalaaikyavedi.blogspot.in/2015/04/blog-post_61.html
<http://www.facebook.com/pages/മലയാളപഠനബോധന-സഹായി/628705850559130?ref=hl>
<http://bloghelpline.cyberjalakam.com/>
<http://blogsahayi.blogspot.in/>

EDU - 09.2: Curriculum and Resources in Digital Era: English Education.

(Theoretical Discourses – 60 & CE – 30 hours)

Objectives :

- To familiarize with concepts related to Curriculum and Syllabus.
- To develop an understanding of the need and scope of school-community linkage.
- To identify and critique different types of Course Books.
- To explore possibilities of collaborative and cooperative learning.
- To sensitize with ways of engaging classes in inclusive settings.
- To evoke a need to regularly update research in the field of ELT

Contents:

- Unit I** Curriculum Designing in English Education
Unit II: Community Based Teaching and Learning of English
Unit III: E-Resources in Teaching & Learning of English
Unit IV: Research Inputs in English Learning

Unit I: Curriculum Designing in English Education (Duration :25 hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. Familiarize student teacher with the principles of curriculum construction and organization 2. Grasp the relationship between curriculum and Syllabus	<ul style="list-style-type: none"> • Principles of Curriculum construction and organization • NCF 2005, 2009, KCF 2007 • Critical Pedagogy • Issue-based curriculum • Social constructivism • Curriculum and Syllabus, Curriculum-Types • Language Curriculum • Philosophical and Sociological 	Direct instruction Intro talk on the different Frame work available Verbal interaction Preparation of Check list and group	<ul style="list-style-type: none"> • Evaluationof entry made in ReflectiveJournal

	<p>perspectives, Psychological and Linguistic Foundations</p> <ul style="list-style-type: none"> • Criteria for Selection of content • Course book, Sourcebook 	analysis of CB	
--	--	----------------	--

Unit II: Community Based Teaching and Learning of English (Duration :20 hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. Acquaint with teaching and learning resources available in formal and informal contexts	<ul style="list-style-type: none"> • Teaching and learning resources • Formal & Informal learning contexts • Role of Language Institutes and Local Library for learning English • Society as Language Lab – FilmTheatre • Literary clubs, Language forums • Interview and Talk by experts • Exposure to events of national importance • Inclusive Education- Concept, Need and significance; Ways of dealing with learners with LD/ Children with Special needs 	<p>Field visit</p> <p>Hands-on experience</p> <p>Group discussion</p> <p>Sharing of learning experience</p>	<ul style="list-style-type: none"> • Surveying • Checklist • Presentation of Field visit reports

Unit III: E-Resources in Teaching & Learning of English (Duration :25 hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To analyze instructional materials in print and digital form for effective transaction	<ul style="list-style-type: none"> • Educational Websites • Virtual Classrooms • On line language games- vocabulary, grammar, spelling etc. • E-Library • E-resources for Prose • Film adaptations - literature and social issues • Audio podcasts • Speeches • Pronunciation and Conversation practice Online • E-resources for Poems • Critique of poems on websites • Exploring text types Online • Descriptive – Narrative- Expository- Argumentative • Recitation 	<p>Presentation of specimen digital resources followed by critique on effectiveness</p> <p>Individual /Pair work</p> <p>Exploring online resources and preparing report</p>	<ul style="list-style-type: none"> • Performance evaluation • Participant observation

Unit IV: Research Inputs in English Learning (Duration : 20 hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To enable student teachers to promote student effort in learning	<ul style="list-style-type: none"> • Research in English Language Education and Second Language Pedagogy • Identifying and locating significant concerns related to language learning 	<p>Intro lecture</p> <p>Enquiry centred discussion</p>	<ul style="list-style-type: none"> • Style of presentation • Performance • Examine communicative competence

	<ul style="list-style-type: none"> • Action Research • Investigating any one learner issue • Review of Recent Research Studies in English Language • Place of English in Inter disciplinary studies-Current trends 	Group tasks by assigning specific roles	
--	--	---	--

Reference

Books:

- Aggrawal, J.C. (2002). Educational Research –An Introduction. New Delhi, Arya Book Depot.
- Borg, Simon and Hugo Santiago Sanchez. (2015). International Perspectives on Teacher Research. Palgrave. ISBN 9781137376206.
- Burns, Anne. (1999). Collaborative Action Research for English Language Teachers. Cambridge University Press.
- Ellis, Rod. (2011). Language Teaching Research and Language Pedagogy. Wiley-Blackwell ISBN: 978-1-4443-3610-8
- Howatt, A. (1984) A History Of English Language Teaching. Oxford University Press.

Journals:

- Interdisciplinary Strategies for English and Social Studies http://apcentral.collegeboard.com/apc/public/repository/ap04_preap_1_inter_st_35891.pdf
- Issue Theme: Interdisciplinary Synergy: Teaching and Learning in Collaboration. English Journal, Vol 103.No. 3 January 2014 <http://www.ncte.org/journals/ej/issues/v103-3>
- The sociology of language teaching and learning. Ravi Bhushan, Theory and Practice in Language Studies, Vol. 1, No. 3, pp. 309-311, March 2011.

Select Online resources:

- Characteristics of a virtual classroom <http://www.learndash.com/characteristics-of-a-virtual-classroom/>

Curriculum

- <http://www.preservearticles.com/2012010920286/the-main-principles-of-curriculum-construction-may-be-mentioned-as-under.html>
- <http://www.differencebetween.info/difference-between-syllabus-and-curriculum>

How to Critique Poetry

- <http://www.wikihow.com/Critique-Poetry>
- http://www.writingroom.com/viewwriting/wr_how_to/How-To-Critique-A-Poem
- Four Types of Writing: <http://hunbbel-meer.hubpages.com/hub/Four-Types-of-Writing>
- Free-ENGLISH.com: <http://www.free-english.com/english/Home.aspx>

Film adaptations

- Adaptation- novel to film: http://www.pbs.org/wgbh/masterpiece/learningresources/fic_adaptation.html
- Adaptation: From novel to film: http://d2buyft38glmwk.cloudfront.net/media/cms_page_media/11/FITC_Adaptation_1.pdf
- Masterpiece theatre: http://www.pbs.org/wgbh/masterpiece/learningresources/fic_about.html
- Inclusive education: <http://nvpie.org/inclusive.html>
- Internet TESL Journal, The <http://iteslj.org/>

Language forums

- <http://www.usingenglish.com/forum/>
- <http://how-to-learn-any-language.com/forum/>
- Learning Disabilities in the ESL Classroom: <http://elt-connect.com/learning-disabilities-esl-classroom/>

Online Language Games

- Games zone: <http://www.english-online.org.uk/games/gamezone2.htm>
- Quia: <http://www.quia.com/pages/havefun.html>
- Vocabulary games: <http://www.vocabulary.co.il/>

Mobile learning

- A beginner' s guide to mobile learning in ELT: <http://englishagenda.britishcouncil.org/seminars/beginners-guide-mobile-learning-elt>
- Mobile Learning in ELT: Survey 2013: <http://nikpeachey.blogspot.in/2012/12/mobile-learning-in-elt-survey-2013.html>
- Online forums: <http://www.studentpulse.com/articles/414/3/using-online-forums-in-language-learning-and-education>
- English Conversation Exercise - Trip to FL - American English Pronunciation: <https://www.youtube.com/watch?v=4ogrBNpHPos>

Pronunciation practice online

- 14 English pronunciation practice - ESL Spoken English lessons - Pronunciation common mistakes: <https://www.youtube.com/watch?v=Xm2RiCGEVPw>
- Pronunciation
- English Speaking Online: <http://www.englishspeakingonline.com/>
- Pronunciation tips: <http://www.bbc.co.uk/worldservice/learningenglish/grammar/pron/>
- Speaking & Pronunciation Practice: <http://esl-writingtutor.com/practice/speaking-pronunciation.html>

Podcasts

- Speaking skills for advanced learners of English: <http://splendidspeaking.podomatic.com/>
- The English we speak: <http://www.bbc.co.uk/podcasts/series/tae>
- Listen to English: <http://www.listen-to-english.com/>

ELT Research

- Action research: <https://www.teachingenglish.org.uk/article/action-research>
- Directory of UK ELT Research 2005-12: <https://www.teachingenglish.org.uk/elt-research>
- Nellie' s English Projects: http://www.nelliemuller.com/Action_Research_Projects.htm

- The State of ELT Research in the UK: http://resig.weebly.com/uploads/8/1/4/0/8140071/panel_discussion_report_part_1_--the_state_of_uk_elt_research.pdf
- Online research: <http://tewt.org/index.php/research>
- National Curriculum Framework 2005: <http://www.ncert.nic.in/rightside/links/pdf/framework/english/nf2005.pdf>
- The Speech Site: <http://thespeechsite.com/en/index.shtml>
- Tips on Reciting: <http://www.poetryoutloud.org/poems-and-performance/tips-on-reciting>
- 8 Current trends in teaching and learning EFL/ESL: <http://blog.tesol.org/8-current-trends-in-teaching-and-learning-efles/>

Useful sites

- Best Websites for teaching and learning 2014: <http://www.ala.org/aasl/standards-guidelines/best-websites/2014>
- Cambridge ELT: <http://uk.cambridge.org/elt/>
- CILT (Centre for Information on Language Teaching and Research) : <http://www.cilt.org.uk/infos/index.htm>

e-Library

- Hathi Trust's digital library: <http://www.hathitrust.org/>
- Open eBooks Directory: <http://e-library.net/>
- ProQuest eLibrary: <http://www.proquest.com/products-services/elibrary.html>

e-Resources for prose

- Early English Prose Fiction (ProQuest): <https://library.rice.edu/collections/eresources/early-english-prose-fiction-proquest>
- e-Resources for poem: <http://www.poetryfoundation.org/learning/resources>
- New E-Resources: http://hul.harvard.edu/ois/news/2014/html/2014-12-01_1049_system.html
- Resources for English and American Literature: <http://www.lib.cam.ac.uk/eresources/subjectresources.php?subjectId=36>
- Education sites: <http://www.topedusites.com/>
- ESLflow : <http://www.eslflow.com/>
- Learn English Central (British Council): <http://www.learnenglish.org.uk/>
- One Stop English Magazine: <http://www.onestopenglish.com/>
- TEFL.NET : <http://www.tefl.net/index.html>

EDU - 10.2: Techno Pedagogic Content Knowledge Analysis: English

HOURS OF INTERACTIONS: 60 (Instructions) + 30(Activities/Processes) = 90 Hrs

Objectives

- **To familiarize with concept of teacher as a Techno-pedagogue.**
- **Identify ways of networking both for knowledge enrichment and instruction.**
- **Familiarize with the scope and possibilities of Models of teaching as an instructional design.**
- **Develops an awareness of global trends in English Language education.**

Contents

- Unit I : TPCCK and Self Instructional Strategies (Duration : 25 hrs)
 Unit II: Networking in language learning (Duration :20 hrs)
 Unit III: Models of Teaching in Language Practice (Duration :25 hrs)
 Unit IV: Global Trends in English Language Education (Duration : 20 hrs)

Unit I :TPCCK and Self Instructional Strategies (Duration : 25 hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. Familiarizes with the concept of teacher as Techno-pedagogue 2. Identifies the inter-relationship between Content Knowledge, Pedagogic Knowledge and Technological Knowledge	<ul style="list-style-type: none"> • Techno-Pedagogy • Content Knowledge • Pedagogic Knowledge • Technology Knowledge • Teacher as a Techno-Pedagogue • Nature and scope of Self instructional Strategies • Programmed Instruction - Linear-Branching • Self Instructional modules • Computer Assisted Instruction(CAI) • Computer Based Instruction (CBI) • Computer Assisted Language Learning (CALL) 	Comparison of same content available in different digital formats Group task to identify effectiveness of different digital content in realizing proposed learning objectives. Demonstration of teaching content with	<ul style="list-style-type: none"> • Preparation of computer-based instructional material

		<p>computer as aid and exclusively using computer</p> <p>Pair and group work to prepare computer-based instructional materials</p>	
--	--	--	--

Unit II: Networking in language learning (Duration :20 hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
<p>1. Familiarizes with ways of exploiting Internet resources for both knowledge enrichment and instruction</p> <p>2. Develops necessary skills for transmission of information and content using websites</p>	<ul style="list-style-type: none"> • Networking: • Teacher –Teacher; Teacher-Institution; Teacher-Student • Forum , Wiki, Blog • Video Conferencing • Professional communities -English Teacher Blogs • Teacher Tube • ESL Café • LinkedIn • Content writing • Copy Writing • Outsourcing • Transcription • Learning Management System • Scope • Storage • Collaboration 	<p>Introductory talk</p> <p>Demo in Smart Classroom</p> <p>Pair-share</p> <p>Collaborative tasks</p>	<ul style="list-style-type: none"> • Group presentation • Monitoring of activities in virtual world • Checking Popularity on Web

Unit III: Models of Teaching in Language Practice (Duration :25 hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. Familiarizes with Models of Teaching as an instructional design and identifies ways of employing them for teaching Prose, Poetry, Vocabulary and Grammar	<ul style="list-style-type: none"> • *Dimensions of a Model- Syntax, Social System, Principles of Reaction, Support System Instructional and nurturant effects • -Direct Instruction Model • -Concept Attainment Model • -Advance Organizer Model • -Synectics Model • -Role Play Model 	<p>Distribution of Specimen Lessons based on specific Models</p> <p>Group tasks for preparing lessons based on specific Models</p> <p>Assimilation and accommodation</p>	<ul style="list-style-type: none"> • Ability to transact the content/ realize objectives in the plans prepared • Checking effectiveness of Lesson Plans based on specific • Models for chosen content

Unit IV: Global Trends in English Language Education (Duration : 20 hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
<ol style="list-style-type: none"> 1. Familiarizes with global trends in Language education 2. Familiarizes with aspects related to translation 3. Gets an awareness of digital resources for Online tutoring 	<ul style="list-style-type: none"> • Exercises and pedagogic practices in countries where English is treated as L₁ • Exercises and pedagogic practices in Asian countries as ESL • Literary Translation as an exercise- poetry, fiction, prose, world classics from India, translation from Malayalam Literature, critical essays etc. • Journal Clubs – Review and discussion of studies and articles in Journals 	<p>Lecture-cum-discussion on different pedagogical practices.</p> <p>Close reading of literary texts followed by group translation</p>	<ul style="list-style-type: none"> • Prepares samples • Peer evaluation • Performance in tests

	<ul style="list-style-type: none"> • Production of digital resources for Online tutoring 	<p>Comparison of articles in journals and magazines to identify form and style required for journal articles followed by critique of articles written by peers</p> <p>Critique of specimen digital resources followed by design and preparation of digital resources for Online tutoring</p>	
--	---	--	--

References

Books:

- Lesley, Farrel (etal.) Eds.) **English Language Education in SouthAsia: From Policy to Pedagogy**. Cambridge University Press.
- Joyce, Bruce and Marsha Weil.(1972) **Models of Teaching**. Prentice Hall Inc. ; Englewood Cliffs.
- Lockwood, Fred. (1998). **The Design and Production ofSelf-instructional Materials**. Psychology Press.
- Sperling, Dave. (1997). **The Internet Guide for English LanguageTeachers** Prentice-Hall Regents. (1998 edition also available).
- Warschauer, Mark (etal.) (2000) **Internet for English Teaching** TESOL.

Journals:

- **Information & Communication Technologies in ELT** . Abdul Mahmoud Idrees, Ibrahim, Journal of Language Teaching and Research. Vol. 1, No. 3, pp. 211-214, May 2010 © 2010 Academy Publisher ISSN 1798-4769
- **Models of Teaching: A solution to the teaching style/learning style dilemma**. Susan S. EllisEducational Leadership. January 1979.P274-77.

Online references:

- **CALL (computer assisted language learning)**: <https://www.llas.ac.uk/resources/gpg/61>
- **Collaborating with Wikis**: <http://tewt.org/index.php/discussion-collaboration/wikis>

- **Content Based Instruction in EFL Contexts.** Stephen Davies, :The Internet TESL Journal, Vol. IX, No. 2, February 2003.
<http://iteslj.org/Articles/Davies-CBI.html>
 - **Critical ELT Practices in Asia Key Issues, Practices, and Possibilities.**: Kiwan Sung and Rod Pederson (Eds.) Transgressions: Cultural Studies and Education Volume 82. Sense Publishers <https://www.sensepublishers.com/media/209-critical-elt-practices-in-asia.pdf>
 - **Educational Blogging:** <http://tewt.org/index.php/discussion-collaboration/blogs>
 - **E-tivities with a Wiki: Innovative Teaching of English as a Foreign Language:** <http://eunis.dk/papers/p87.pdf>
 - **How to Write and Publish an Academic Research Paper:**
http://www.journalprep.com/FILES/How_to_Write_and_Publish_an_Academic_Research_Paper.pdf
- Online reading material**
- http://www.gutenberg.org/wiki/Main_Page
 - <http://onlinebooks.library.upenn.edu/archives.html>
- Online tutoring platforms**
- <https://buddyschool.com/>
 - <http://www.tutorvista.co.in/index.php>
 - <https://www.smarthinking.com/services-and-subjects/services/live-online-tutoring/>
- Quick guide to LMS:** <http://edudemic.com/2012/10/a-quick-guide-to-learning-management-systems/>
- **Rubrics for Web Lessons:** <http://webquest.sdsu.edu/rubrics/weblessons.htm>
 - **Select Podcasting Sites:** English as a Second Language Podcast: <http://www.eslpod.com>
 - **Specimen Linear Programme for teaching Grammar:** <http://programmedinstruction.tiddlyspot.com/#Nouns-17>
 - **Teaching English in the Digital Age:** <http://digitalenglish.weebly.com/>
 - **Translation activities in the language classroom:** <https://www.teachingenglish.org.uk/article/translation-activities-language-classroom>
 - **Using computers in language teaching:** <http://esl.fis.edu/teachers/support/teach.htm>
 - **Using Videoconferencing to Facilitate Various Perspectives on the Teaching and Learning Process** Farren, M. (2002)
<http://www.computing.dcu.ie/~mfarren/perspectives.htm>
- What is technological pedagogical content knowledge?:** Koehler, M. J., & Mishra, P. (2009), Contemporary Issues in Technology and Teacher Education.9(1), 60-70.<http://www.citejournal.org/articles/v9i1general1.pdf>
- **Writing a journal article review:** <https://academicsskills.anu.edu.au/resources/handouts/writing-journal-article-review>
 - **12 Content-writing secrets of professional writer***The Advanced Content Marketing Guide.* Neil Patel and Kathryn Aragon.
<http://www.quicksprout.com/the-advanced-guide-to-content-marketing-chapter-5/>

EDU - 09.3. : CURRICULUM AND RESOURCES IN DIGITAL ERA: HINDI EDUCATION

HOURS OF INTERACTIONS: 60 (Theoretical Discourses) + 30(Activities/Processes) = 90 Hrs

Objectives

- To be conversant with modern principles and trends in the construction and transaction of Hindi curriculum
- To develop experience to systematically correlate instructional practices with the community
- To attain proficiency in transacting the Hindi curriculum from a digital migrant outlook
- To generate a broad perspectives of e-resources in instructional practices and to develop skill in retrieving and transacting Hindi curriculum through e-resources
- To develop a positive attitude towards research to develop inquiry skills and scientific investigation

CONTENTS :

Unit 1 Curriculum Designing in Hindi Education

Unit 2 School and Community Based Instructional Resources in Teaching Hindi

Unit 3 E-Resources in Teaching and Learning of Hindi

Unit 4 Research Trends in Hindi Education

Unit 1: Curriculum Designing in Hindi Education (16 Hours + 7 Hours)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. Get acquainted with the modern principles and trends in curriculum construction and designing of instructional materials for curriculum transaction	<ul style="list-style-type: none"> • Curriculum – Concepts and principles of curriculum construction • Approaches, types of curriculum • Curriculum and Syllabus. • Preparation and designing of curriculum transaction material for Hindi language instruction: Designing of student-teacher generated Digital texts, adapting free downloadable digital resource in Hindi, Familiarising with the use of basic tools and software in Hindi -Google transliteration (for Hindi typing), Hindi online dictionaries – 	Analytical approach Seminar Lecture Co-operative learning Workshop Library works Utilisation of web resources	<ul style="list-style-type: none"> • Group investigation summary reports • Authenticating the trustworthiness of the networking resources – by peers and mentor

	www.shabdkosh.com, Collection of Hindi sites - http://dir.hinkhoj.com , Searching Wikis for collecting materials for classroom instruction		
--	---	--	--

Unit 2 : School and Community Based Instructional Resources in Teaching Hindi (18 Hrs + 7 Hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. Develop a desire to take active involvement in social and community affairs and develop skills in public relation 2. Acquaint with teaching and learning resources available in formal and informal contexts 3. Equip to systematically correlate instructional practices with the society	<ul style="list-style-type: none"> • School and community based instructional resources, school to the community and community to the school, social and community involvement activities • Formal and Informal learning contexts • Role of PTA, MPTA • Society as language lab: Film, Theatre • Field visit, visit to central Govt institutions, interaction with native Hindi speakers, visiting institutions that promote Hindi language namely Kerala Hindi Prachar sabha, Dakshin Bharat Hindi Prachar Sabha, Regional Hindi Directorates etc., visit to SCERT, NCERT • Organizing co-curricular activities: language forums, Hindi literary clubs and day celebrations • Need and importance of library in Hindi education, developing library skills 	Discussion Field visit Hands-on experience Project method Visit to institutions	<ul style="list-style-type: none"> • Prepare a list of community resources- discuss and present the ways to utilize the community resources • Report on field study • Surveying

Unit 3: E-Resources in Teaching and Learning of Hindi (12 Hrs + 8 Hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. Analyze Hindie-resources in instructional practices 2. Familiarize with on- line resources,softwares and social networking 3. Explore and practice infotainment activities in language	<ul style="list-style-type: none"> E-resources: utilization of e- resources, web resources, need for Hindi e-resource pooling and development of e-portfolio, M-learning as a pervasive method for effective Hindi instruction, e-learning, web based learning. Learning management system (LMS) in teaching learning of Hindi education— Familiarize with transliteration software for Hindi typing and editing,Formation of Hindi Net groups/online communities, e-content in Hindi for enhancing students language attainment- social networking, developing Blogs and posts in blogs, e-journals, pod casting, IT enabled instructional resources: On line resources, videos, YouTube resources, animations, film clippings, online Hindi lessons (HINDI PAAD)	Online learning Demonstration Individual/ group work Web search	<ul style="list-style-type: none"> Assessing the preparation of e-learning material Preparing report on online resources

Unit 4 Research Trends in Hindi Education (14 Hrs+ 8 Hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. Grasp the need and scope of research in Hindi instruction 2. Develop research aptitude, and inquiry skills	<ul style="list-style-type: none"> An introduction to Research in Education- Need and scope of research in teaching-learning Hindi, need for developing innovative techniques and strategies 	Group Discussion Prepare a note/paper (utilizing internet) on the latest research findings on	<ul style="list-style-type: none"> Evaluation of seminar presentation skill Performance assessment Examine communicative competence

	<ul style="list-style-type: none"> • Hindi teacher as a researcher • Analysis of Research outcomes in Hindi education with respect to teaching and learning • Action Research 	<p>pedagogical aspects in Hindi</p> <p>Group Seminar</p> <p>Action Research Project</p>	
--	--	---	--

EDU- 10.3 : TECHNO PEDAGOGIC CONTENT KNOWLEDGE ANALYSIS – HINDI

HOURS OF INTERACTIONS: 60(Theoretical Discourses) + 30 (Activities/Processes) = 90 Hrs

Objectives

- To prepare the prospective teachers to be techno- pedagogue and become aware of the concept TPCK
- To develop the skill of inculcating technology assisted Hindi learning
- To familiarize with the networking system for institutional and professional growth
- To empower in surfing digital resources for Hindi instruction
- To get acquainted with the importance of learning Hindi in a global perspective.

Contents :

Unit 1 Techno Pedagogic Content Knowledge Analysis (TPCK) and Self Instructional Strategies

Unit 2 Networking in Hindi Learning

Unit 3 Models of Teaching in Hindi

Unit 4 Global Trends in Education

Unit 1 Techno Pedagogic Content Knowledge Analysis (TPCK) and Self Instructional Strategies (18 Hrs+7 Hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. Acquire the concept of teacher as techno- pedagogue and become aware of the concept TPCKA 2. Become conversant with technology enhanced learning 3. Get acquainted with the self instructional strategies and need of creating e-mail and blogs for pedagogical analysis	<ul style="list-style-type: none"> • Inter relationship between Technology, Pedagogy and Content, Teacher as Techno-Pedagogue • Scope of Techno-Pedagogic Content Knowledge Analysis • TPCK based content analysis of text books in Hindi from std V11 to X11 • Creating technology enhanced learning environment, 21st century skills • Collections of links to websites in Hindi, e-Newspapers and e-journals 	TPCK based content analysis through peer discussion and teacher intervention Demonstration On line and off line learning Group discussion	<ul style="list-style-type: none"> • Prepare a self explanatory note on ‘Teacher as a Techno-Pedagogue’ • Document analysis

	<ul style="list-style-type: none"> • Self instructional strategies: Digital portfolio,online collaboration,use of multi media,web-portal,e-learning, technology integrated Problem Solving Learning, Computer Assisted Learning Packages, preparation of self instructional modules, creation of e-mail ID and blogs, preparation of PowerPoint presentations • Internet as a research and communication tool, using search engines, chat rooms, blogs to encourage peer interaction / expert consultation / collaborative projects 	Power point presentation	
--	---	--------------------------	--

Unit 2 Networking in Hindi Learning (12 Hrs+ 6 Hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. Develop the ability to acquaint with the various modes of networking for effective language instruction 2. Equip to generate avenues for networking as a means to enhance Hindi language learning	<ul style="list-style-type: none"> • Professional and Institutional growth: student and institution networking • e-twinning • Collaboration with any institution's online portal for institutional and professional growth • Online learning: concept and system of online learning, virtual learning, creating social online groups for promoting teaching-learning of Hindi, Hindi language translation sites and softwares-Translation Buddy.com/Hindi • Applications of Social Networking systems, online reflection using blogs, online forums and Hindi communities, communication 	Utilising e-learning resources Virtual tour to digital learning platforms Downloading / pooling competency enhancement packages/ resources Workshop Postings in blogs	<ul style="list-style-type: none"> • Performance assessment and feedback • Evaluation of Online Assignments

	sites, preparation of online notes <ul style="list-style-type: none"> • Awareness of student safety on the Internet, Copyright Issues and International Copyright laws regarding computer technology and Internet 		
--	---	--	--

Unit 3 Models of Teaching (14 Hrs + 9 Hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. Familiarizes with different types of Models of Teaching as an instructional design	<ul style="list-style-type: none"> • Models of Teaching – Introduction and definition, dimensions of a model, classification of models, types and families • Designing of effective Models for Hindi language learning – Concept Attainment Model, Role-Play Model, , Inductive – Deductive Thinking Model, Advance Organizer Model, Synectics Model – theory and classroom practices, preparation of lesson templates for each model 	Demonstration of models of teaching Preparation of lessons based on models of teaching Simulation	<ul style="list-style-type: none"> • Experience sharing • Assessment of lesson plans • using different models of teaching • Peer assessment • Examine the level of participation

Unit 4 Global Trends in Hindi Education (16 Hrs + 8 Hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. Familiarizes with global trends in language education 2. Analyze the scope of Hindi language in the global context	<ul style="list-style-type: none"> • Importance of Hindi as link language in the global context • Hindi education and job opportunities in the global context • Global trends in Hindi education • Hindi language education in India and Gulf countries 	<ul style="list-style-type: none"> • Discussion • Brain storming • Problem solving • Concept maps • Online learning • Assignment • Report 	<ul style="list-style-type: none"> • Presentation • Assessment of assignment/report

EDU - 09.4 : CURRICULUM AND RESOURCES IN DIGITAL ERA: SANSKRIT EDUCATION.

[THEORETICAL DISCOURSES - 60HOURS+ CE -30HOURS]

OBJECTIVES :

- To understand and analyse the curriculum and text books of Sanskrit from std 7-12 prepared by SCERT based on the theoretical principles of curriculum construction.
- To identify and to understand the Community based teaching learning resources in Sanskrit.
- To familiarize and practice e-resources in teaching and learning of Sanskrit.
- To conduct action researches based on classroom practices.

CONTENTS :

UNIT -1	CURRICULUM DESIGNING IN SANSKRIT EDUCATION
UNIT II-	COMMUNITY BASED TEACHING AND LEARNING OF SANSKRIT
UNIT III-	E- RESOURCES IN TEACHING AND LEARNING OF SANSKRIT
UNIT IV-	RESEARCH INPUT IN SANSKRIT LEARNING

Unit-1 curriculum designing in Sanskrit education[15HOURS+6HOURS]

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To understand and analyse the curriculum and text books of Sanskrit from std 7-12 prepared by SCERT based on the theoretical principles of curriculum construction.	<ul style="list-style-type: none">• Principles of Curriculum construction and organization- General principles of curriculum construction.-Concentric and spiral approaches. Psychological and logical approaches. Modern trends in curriculum. Review of NCF2005,2009,KCF 2007, Theoretical base of kerala Curriculum framework.- critical pedagogy, issue based – curriculum-social constructivism-Outcome based Learning. curriculum-and Syllabus - Curriculum-Types -Importance of Curriculum-Present position of Sanskrit in school Curriculum. Approach to language	Discussion. Lecture method. Meaningful verbal expression. Review. Presentation. Brain storming.	<ul style="list-style-type: none">• Optional level focused group discussion.• Participant observation-• Observation.• Examine the level of participation• Participant observation.• Participation.• Observation.• Observation and Criticism.• Test-5Marks.

	<p>syllabus design-First language –second language- issue based Inclusion of classical and vedic literature-treatment of grammar alenkara and vretta. Time allotted to various stages -. Critical study of Sanskrit syllabus.</p>	<p>Discussion lessons- Designing templates and recording-5-and models of teaching-3 out of 5.-15 marks.</p> <p>Demonstration [observation and recording]-2.</p> <p>Criticism-performance,observation, and recording-5 and models of teaching-3 out of 5.</p> <p>Critical analysis.</p>	
--	---	--	--

UNIT- II: COMMUNITY BASED TEACHING AND LEARNING OF SANSKRIT[13HOURS+7HOURS]

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To identify and to understand the Community based teaching learning resources in Sanskrit.	<ul style="list-style-type: none"> Teaching and Learning resources. School, Library,Literary clubs, Language lab,Community-Formal and Informal Learning. Role of Language Institutes and Local Library for Learning Sanskrit. Society as Language Lab. –Film Theatre-Language Forums-Interview and talks by experts. Exposure to events of national importance.Sanskritotsava-Sanskrit day 	<p>Discussion.</p> <p>School induction programme.</p>	<ul style="list-style-type: none"> Role performance. Based on report and participant observation. Participant observation. Analysis and mapping. Observation. Analysis the group discussion. Participant observation. Practicum-10 Marks.

	<p>celebrations-Observation of kalidasa and vyasa jayanthi. Visit to various historical places and importance of sanskrit - archeology museum, mural paintings, Sanskrit universities, kalamandalams, panmana asramam, Rashtreya samskrita samstan puranattukara etc. Inclusive Education-Concept, Need and Significance, Ways of dealing with learners with LD/Children with special needs.</p>	<p>Buzz session. Mind mapping. Presentation. Narrative expression session in small or medium groups. Community living camps. Visits. Interview.</p>	
--	--	---	--

UNIT-III-E-RESOURCES IN TEACHING AND LEARNING OF SANSKRIT[18HOURS+10HOURS]

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To familiarize and practice e-resources in teaching and learning of Sanskrit.	<ul style="list-style-type: none"> Definition-Identification of e-resources. M-Learning in SLT-Sanskrit related Websites.—Virtual Classrooms- E-Library. E-Resources for Prose and Poems. 	<p>Demonstration and lecturing. Assaigments for preparing lessonplans based on E resources. Meaning full verbal expression. Video script- Developing, enacting,</p>	<ul style="list-style-type: none"> Observation. Participant observation. Role performance. Participant observation.

		recording and uploading-1- 10 marks. Or ICT based Lesson designing and uploading in Blog-1 Presentation.	
--	--	---	--

UNIT IV- RESEARCH INPUTS IN SANSKRIT LEARNING[14 HOURS+7HOURS]

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To Conduct action researches based on classroom practices.	<ul style="list-style-type: none"> The importance of Research-Scope- Identifying and locating significant concerns related to the learning of the Sanskrit language learning-Action Research- Meaning and scope of action research. Investigating any one learner issue-Review of recent Research studies in Sanskrit language. Current trends. 	Lecture cum discussion. Demonstration. Lecture method. Group discussion. Data collection .Preparation of tools. Report writing. Document analysis andPresentation.	<ul style="list-style-type: none"> Observation. Written test. Valuation of reports. Role performance. Evaluation of daily reflective journals. Participant observation. Seminar/Presentation.-5-Marks.

EDU – 10 .4 : TECHNO PEDAGOGIC CONTENT KNOWLEDGE ANALYSIS :SANSKRIT.

[Transactional hours -60+ CE – 30 hours]

OBJECTIVES :

- To develop teacher as a Techno- pedagogue
- To familiarize with the concept of teacher as a techno-pedagogue.
- Identifies ways of professionalizing Language education in a techno-pedagogic scenario.
- To practice networking activities and related resources
- To understand the Global trends in Sanskrit Education.

CONTENTS :

UNIT-I TPCCK AND SELF INSTRUCTIONAL STRATEGIES.
UNIT-II NET WORKING IN LANGUAGE LEARNING.
UNIT-III MODELS OF TEACHING IN LANGUAGE PRACTICE.
UNIT IV GLOBAL TRENDS IN SANSKRIT LANGUAGE EDUCATION.

UNIT I - TPCCK AND SELF INSTRUCTIONAL STRATEGIES.[15HOURS+8HOURS]

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To develop teacher as a Techno-pedagogue.	<ul style="list-style-type: none">• Techno-Pedagogy, Content knowledge, Pedagogic Knowledge, Technological Knowledge-Teacher as a Techno-Pedagogue, Nature and scope of self instructional strategies. Programmed instruction-Linear-Branching-Self instructional Modules-Computer Assisted instruction CAI-Computer based instruction CBI-Computer Assisted Language Learning CALL.	Lecture cum Demonstration. ICT based Lesson Template. Group discussions. Preparation of programmed instructional materials.	<ul style="list-style-type: none">• Participant observation.• Discussion and Participant observation.• Analysis the role performance.• Performance.• Role performance.• Test- 5 Marks.

		<p>Presentation.</p> <p>School induction programme for one week.-15 marks.</p> <p>Observation of model lessons-2 nos-and reporting during school induction-10 marks.</p>	
--	--	--	--

UNIT II - NETWORKING IN LANGUAGE LEARNING[13HOURS+7HOURS]

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To practice networking activities and related resources.	<ul style="list-style-type: none"> Net Working:-Teacher-Teacher; Teacher-Institution; Teacher-Student. Forum-Wiki-Blog-Video Conferencing. Professional Communities-Sanskrit teacher Blogs-Teacher Tube--. Content Writing-Copy Writing-Out sourcing-Transcription. Learning Management system-Scope-Storage-Collaboration. 	<p>Lecturing and Demonstration.</p> <p>Group discussion about the possibilities of Net working in language learning.</p> <p>Presentation.</p>	<ul style="list-style-type: none"> Observation. Role performance. Participant observation. Performance. Association activity-5Marks.

UNIT III MODELS OF TEACHING IN LANGUAGE PRACTICE.[18HOURS+8HOURS]

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To prepare different types of Models of Teaching.	<ul style="list-style-type: none"> Dimension of a Model-Syntax, Social System, Principles of Reaction, Support system, Instructional and Nurturant effects. . Concept attainment model, Enquiry Training Model, Advance Organizer Model, Synectics Model, Role play Model 	Lecture cum Demonstration. Group discussion. Narrative expression. Lesson plan and demonstration class. Criticism Lessons. Presentation.	<ul style="list-style-type: none"> Observation. Role performance. Participant observation. Role performance. Performance observation and recordings. Performance.

UNIT IV - GLOBAL TRENDS IN SANSKRIT LANGUAGE EDUCATION[14HOURS+7HOURS]

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To understand the Global trends in Sanskrit Education.	<ul style="list-style-type: none"> Global trends-Its Meaning-Scope-Significance. Learning of Sanskrit in different Countries-Switzerland, Germany Austreliya, Arjentina, Britain, Thailand, United States, France, Japan, Nepal . Curriculum of Sanskrit in different Countries [-School-Higher Education-Research. Non formal way of Learning Sanskrit in these countries-Spiritual learning in schools.Practice of Yogasanas, Pranayama , 	Demonstration. Group discussion. References/Internet. Collect resources. Collection of	<ul style="list-style-type: none"> Observation. Role performance. Individual assessment. Presentation. Presentation. Participant observation. Assignment. Role performance. Peer instruction.

	<p>Dhyana etc. Influence of Sanskrit literature on spirituality and existing spiritual practices like Art of living, Isha Yoga, Sahajamargam, Reiki etc. Daily reading of Ramayana, Bhagavadgita, Bhagavata .Stotrautras. Daily prayers of all religions.</p> <ul style="list-style-type: none"> • Spiritual leaders contribution to Sanskrit- Chattambiswamikal, Sreenarayanaguru, Sankaracharya. Swami Vivekananda. • Influence of Sanskrit to various cultures- Thailand, Indonesia, etc. • Comparative Education as a new Subject- Comparison with other languages [English, Malayalam, Hindi] • Contribution of Sanskrit other disciplines, Medicine, Ayurveda, Music, Agriculture, Law etc. 	<p>knowledge.</p> <p>Group Discussion.</p> <p>Collect resources.</p> <p>Discussions.</p> <p>Meaning full verbal expressions.</p> <p>Presentation.</p>	<ul style="list-style-type: none"> • Performance. • Practicals-10- Marks.
--	---	---	---

EDU.09.5 : CURRICULUM AND RESOURCES IN DIGITAL ERA – Arabic Education

[Transactional hours -60+ CE – 30 hours]

Objectives:

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

- Familiarize with the principles of curriculum construction and organization
- Acquaint with teaching and learning resources available in the formal and informal contexts
- Develop the ability to prepare instructional materials in various forms for effective transaction
- Explore and practice infotainment activities in language
- Enable to promote student effort in learning
- Equip to manage diverse learner needs in language classes
- Develop interest in innovative practices in the field of Arabic Language Teaching and learning

Contents

- UNIT I:** CURRICULUM DESIGNING IN ARABIC LANGUAGE EDUCATION
UNIT II: COMMUNITY BASED TEACHING & LEARNING OF ARABIC LANGUAGE
UNIT III: E-RESOURCES IN TEACHING & LEARNING OF ARABIC LANGUAGE
UNIT IV: RESEARCH INPUTS IN ARABIC LANGUAGE LEARNING

UNIT I: CURRICULUM DESIGNING IN ARABIC LANGUAGE EDUCATION CURRICULUM

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. Familiarizes with the principles of curriculum construction and organization 2. Acquaints with various trends in modern language curriculum	<ul style="list-style-type: none"> • Curriculum: Meaning, Definition & Principles • Approaches to curriculum construction • Curriculum and syllabus, Types of Curriculum, language curriculum • Criteria for selecting curriculum content • Modern Trends in Curriculum Construction: • Life Centered- Learner Centered,- Activity 	Introductory Lecture Discussion Group Discussion	<ul style="list-style-type: none"> • CE • Assignments • Discussion reports • Debate • Class test • TE

	<p>Centered, Issue Based, Problem Pausing, Process Oriented</p> <ul style="list-style-type: none"> • NCF(2005), KCF(2007) • A critical review of Arabic Curriculum of state schools of Kerala 	<p>Observation</p> <p>Narration</p>	
--	---	-------------------------------------	--

UNIT II: COMMUNITY BASED TEACHING & LEARNING OF ARABIC LANGUAGE

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
<ol style="list-style-type: none"> 1. Acquaints with teaching and learning resources available in the formal and informal contexts 2. Develops the skill of applying community based learning resources in teaching and learning 	<ul style="list-style-type: none"> • Community Based Teaching and Learning Resources: Formal & Informal learning contexts • Role of University Departments, Arabic Colleges, Dars system, Religious madrasas • Society as Language Lab • Role of films and Theatres, Newspapers, Magazines& Electronic Medias etc. • Language forums, Interview & Talks by Experts, Exposure to events of National Importance; Celebration of International Arabic Day 	<p>Introductory Lecture</p> <p>Discussion</p> <p>Group Discussion</p> <p>Observation</p> <p>Narration</p>	<ul style="list-style-type: none"> • CE • Observation • Discussion report • Assignments • TE

UNITIII: E-RESOURCES IN TEACHING & LEARNING OF ARABIC LANGUAGE

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
<ol style="list-style-type: none"> 1. Explores and practice infotainment activities in language teaching 2. Develops interest in innovative practices in the field of Arabic 	<ul style="list-style-type: none"> • E- learning and E teaching: • Digital text books/E-book, Digital library & other online resources • Designing of Digital text books , e-books and 	<p>Introductory Lecture</p> <p>Discussion</p>	<ul style="list-style-type: none"> • CE • Workshop report • Discussion report • Observation

Language Teaching and learning	its application <ul style="list-style-type: none"> • Adopting down loaded resources for teaching Arabic • M-learning: Smart phones as Learning Devices and its scope 	Group Discussion Observation Narration	<ul style="list-style-type: none"> • TE
--------------------------------	--	--	--

UNIT IV: RESEARCH INPUTS IN ARABIC LANGUAGE LEARNING

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To review and disseminate the recent researches in the field of Arabic language 2. Equips to manage diverse learner needs by conducting actions Research in Arabic Language Education	<ul style="list-style-type: none"> • Researches in Arabic Language Education and Second Language Pedagogy • Identifying and locating significant concerns related to Arabic language learning • Action Research –Investigating learner issues • Review of Recent Research Studies in Arabic Language Education • Place of Arabic language as a source of knowledge 	Introductory Lecture Discussion Group Discussion Observation Narration	<ul style="list-style-type: none"> • CE • Reports • Assignments • TE

References:

- Thatweeru Adai -al Muallim; kifayathu thaaleem wa thahleel al muthawasila : Hashim Uwaidha, Dar al Ilm al Malayeen , Labanan
- Thaaleemu al lugha al arabiyya baina nadriyya wa thathbeeq: Dr Hasan Al Shahatha, Dar Misriyya wa llubnaniya
- Thareeqathu Thadreesi Wa strateejiiyyathuhu: Dr Muhammed Mahmmod al Haila, Dar Al Kitab Al Jamia, Al ain, UAE
- Thaaleem al lugha al Arabiya lighairi al nathiqeena biha : Makthab al tharbiyya al Arabi liduwal al Khaleej
- Thuruqu thadrees al lugha al Arabiyya lil madaris al muthawassitha wa thanaiyya : Hasan Mulla Uthman ; Dar alam al Kuthub lithbaa wa nnashshr wa thouzeea, Riyadh, KSA
- Thaqnolojiya al Thaaleem; Al wasail al thaaleemiyya wa thaqniyyath al thaaluum: Dr. Muhammed Assam Tharbay , Dar Hammurabi lilynashri wa thouzeea
- Asaleeb Wa Thuruqu al-Thadrees al Hadeesa : Dr. Muhammed Assam Tharbaya; Dar Hammurabi lilynashri wa thouzeea
- Providing teachers effective strategies for using technology techrends: Brown B& Henscheid
- The systematic Design for Instruction: Dick, W& L(1990)

- Istheeratheejiyyath wa Maharah al Tharees :Kamal al Jundi; Dar al Jumhooriya lilthibaa
- Wasaail al Ithisal wa thaknologia fithaaleem :Dr Abd al hafiz muhammed salama ,Dar al Fjkar
- Al thadrees wa Iadad al Muallim: Dr.S Abdulrahman qindeel Dar al Nashr al Duwali
- Murshid al Muallim: Richard D. C ; Aalam al Kutub al Qahira
- Al Thadrees Ahdafuhu wa usasuhu wa Asaleebuhu Thaqweemu Nathaijuhu wa Thathbeeqathuhu: Dr Fikri Hasan Rayan, Aalm al kutub , al qahira
- Madkhal Ila Tharbiya al muthamayzeena wal Mauhoobeen, Dar al fikar lial thibaa wa Nashr
- Kuthub al Mudariseen lil madaris al thanawiyya: Majli al wilaya lilbuhuzu thabaviyya wathadreeb
- Al tharbiya wa thuruqu thadrees: Salih Abdul Azeez& Abdul Azeez Abdul Majeed; Dar al Maarif, Al Qahira
- Kaifa Thulqi Darsak: Yabhasu fi usooli al tharbiyath wa thadrees, Dar al Ilm lil Malayeen , Bairut.
- Al Muwajjah al Amali li Mudarisee al Lugha Al Arabiyya: Abid Thoufeeq al Hashmi; Al Risala publishing House, Bairoot
- National Curriculum Frame work 2005 , NCERT , New Delhi
- Teaching Strategies: A guide to better instructions, HMCo. New York
- Research in Education; Best J W, & Kahn J.V, prentice hall India Pvt Ltd.

EDU.10.5 : TECHNO- PEDAGOGIC CONTENT KNOWLEDGE ANALYSIS – ARABIC

(Theoretical Discourses - 60 hours& CE – 30 hours)

Objectives:

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

- Develop an understanding of techno- pedagogy and its principles
- Familiarize with the ways and importance of networking for professional and institutional growth
- Develop the ability and acquires the teaching skills by practicing complex skills of classroom teaching
- Develop the skill of enhancing web based resources in teaching
- Familiarize with basic concept of models of teaching and apply in class room teaching
- Acquire the ability to design lesson templates based on selected Models of teaching
- Familiarize with the global trends and developments in pedagogic practices of Arabic language Education

Contents

- UNIT I :** TPCK AND SELF INSTUCTIONAL STRATEGIES
UNIT II : NETWORKING IN ARABIC LANGUAGE LEARNING
UNITIII : MODELS OF TEACHING IN PRACTICE
UNITIV : GLOBAL TRENDS IN ARABIC LANGUAGE EDUCATION

MODULE: UNIT I: TPCK AND SELF INSTUCTIONAL STRATEGIES

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. Develop an understanding of Techno- pedagogic content knowledge Analysis 2. Develops the ability and acquires the teaching skills by practicing complex skills of classroom teaching	<ul style="list-style-type: none"> • Techno Pedagogic Content Knowledge Analysis (TCPKA) • Inter relationship of Content Knowledge, Pedagogical Knowledge & Technological Knowledge • Scope and challenges of TPCKA in Arabic language Teaching • Teacher as a Techno Pedagogue 	Introductory Lecture Discussion Group Discussion Observation	<ul style="list-style-type: none"> • CE • Report • Workshop- products • TE

	<ul style="list-style-type: none"> • Knowledge generation/ production • Use of web based resources of TPCK • TPCK based content Analysis of selected units of TB of Secondary schools • Programmed Instruction and Self instructional modules 	Narration	
--	---	-----------	--

UNIT II: NETWORKING IN ARABIC LANGUAGE LEARNING

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. Familiarize with the ways and importance of networking for professional and individual growth	<ul style="list-style-type: none"> • Networking in Teaching and learning • Networking for professional growth • Professional communities : E-twinning for institutional & professional growth • Forming forum of online learning: • Emails, blogs, teacher tube, for promoting teaching and learning of Arabic • Learning Management System – MOODLE 	Introductory Lecture Discussion Group Discussion Observation Narration	<ul style="list-style-type: none"> • CE • Observation • Online- Assignments • TE

UNITIII: MODELS OF TEACHING IN PRACTICE

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. Familiarize with basic concept of models of teaching ways of employing it teaching 2. Acquire the ability to design lesson templates based of selected models	<ul style="list-style-type: none"> • Models of Teaching: • Basic Concepts and Properties: • Syntax, Social System, support system, principles of reaction ,Instructional & nurturant effects 	Introductory Lecture Discussion	<ul style="list-style-type: none"> • CE • Assignments • Discussion report • TE

and apply in classroom teaching	<ul style="list-style-type: none"> • Designs based on selected models of teaching: • Concept Attainment Model, Advance Organizer Model , Synatics Model 	<p>Group Discussion</p> <p>Observation</p> <p>Narration</p>	
---------------------------------	---	---	--

UNITIV: GLOBAL TRENDS IN ARABIC LANGUAGE EDUCATION

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. Familiarizes with the global trends and developments in pedagogic practices of Arabic language education	<ul style="list-style-type: none"> • Position of Arabic Language in the Modern World • Arabic language education in Kerala • Pedagogic practices of Arabic Language in speaking / non speaking countries • Critical Analysis of teaching and learning of Arabic Language in Kerala 	<p>Introductory Lecture</p> <p>Discussion</p> <p>Group Discussion</p> <p>Observation</p> <p>Narration</p>	<ul style="list-style-type: none"> • CE • Discussion • Seminar reports • TE

References:

- Models of Teaching: Bruce Joyce & Marsha weil
- Thareeqathu Thadreesi Wa strateejjiyyathuhu: Dr Muhammed Mahmmmod al Haila, Dar Al Kitab Al Jamia, Al ain, UAE
- Al Mawajjah Al Fanni Li Mudarirsee al Lughal Al Arabiyya: Abdul Aleem Ibrahim; Dar al maarif, Al qahira
- Thaaaleem al lughha al Arabiya lighairi al nathiqeena biha : Makthab al tharbiyya al Arabi liduwal al Khaleej
- Thuruqu thadrees al lughha al Arabiyya lil madaris al muthawassitha wa thanaiyya : Hasan Mulla Uthman ; Dar alam al Kuthub lithbaa wa nnashshr wa thouzeea, Riyadh, KSA
- Thaqnolojiya al Thaaaleem; Al wasail al thaaaleemiyya wa thaqniyyath al thaaluum: Dr. Muhammed Assam Tharbay , Dar Hammurabi lilynashri wa thouzeea
- Asaleeb Wa Thuruqu al-Thadrees al Hadeesa : Dr. Muhammed Assam Tharbaya; Dar Hammurabi lilynashri wa thouzeea

- Providing teachers effective strategies for using technology tech trends: Brown B& Henscheid
- Istheeratheejjiyyath wa Maharah al Tharees :Kamal al Jundi; Dar al Jumhooriya lilthibaa
- Wasaa'il al Ithisal wa thaknologia fithaaleem :Dr Abd al hafiz muhammed salama ,Dar al Fjkar
- Murshid al Muallim: Richard D. C ; Aalam al Kutub al Qahira
- Al Thadrees Ahdafuhu wa usasuhu wa Asaleebuhu Thaqweemu Nathaijuhu wa Thathbeeqathuhu: Dr Fikri Hasan Rayan, Aalm al kutub , al qahira
- Thaqniyyath al thaaleem(Mafhoomuha wa douruha fi thahseeni amaliyyath al thaaleem wa thaallum: Badar Salih
- Kithab al Muallim : Majlis al wilaya lilbuhuzu thabaviyya wathadreeb (SCERT)
- Al tharbiya wa thuruqu thadrees: Salih Abdul Azeez& Abdul Azeez Abdul Majeed; Dar al Maarif, Al Qahira
- Kaifa Thulqi Darsak: Yabhasu fi usooli al tharbiyath wa thadrees, Dar al Ilm lil Malayeen , Bairut.
- Al Muwajjah al Amali li Mudarrisee al Lughah Al Arabiyya: Abid Thoufee'q al Hashmi; Al Risala publishing House, Bairoot

EDU- 09.6 : Curriculum and Resources in Digital Era: Tamil Education

(Theoretical Discourses – 60 & CE – 30 hours)

Objectives:

- To familiarize with concepts related to Curriculum and Syllabus.
- To develop an understanding of the need and scope of school-community linkage.
- To identify and critique different types of Course Books.
- To explore possibilities of collaborative and cooperative learning.
- *To sensitize with ways of engaging classes in inclusive settings.
- To evoke a need to regularly update research in the field of TLT

Contents

- Unit I** Curriculum Designing in Tamil Education
Unit II: Community Based Teaching and Learning of Tamil
Unit III: E-Resources in Teaching & Learning of Tamil
Unit IV: Research Inputs in Tamil Learning

Unit I: Curriculum Designing in Tamil Education (25 hours)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. Familiarize student teacher with the principles of curriculum construction and organization 2. Grasp the relationship between curriculum and Syllabus	<ul style="list-style-type: none"> • Principles of Curriculum construction and organization • NCF 2005, 2009, KCF 2007 • Critical Pedagogy • Issue-based curriculum • Social constructivism • Curriculum and Syllabus, Curriculum-Types • Language Curriculum 	Direct instruction Intro talk on the different Frame work available Verbal interaction Preparation of Check	<ul style="list-style-type: none"> • Evaluation of entry made • in Reflective • Journal

	<ul style="list-style-type: none"> Philosophical and Sociological perspectives, Psychological and Linguistic Foundations Criteria for Selection of content Course book, Sourcebook 	list and group analysis of CB	
--	---	-------------------------------	--

Unit II: Community Based Teaching and Learning of Tamil (20 hours)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. Acquaint with teaching and learning resources available in formal and informal contexts	<ul style="list-style-type: none"> Teaching and learning resources Formal & Informal learning contexts Role of Language Institutes and Local Library for learning Tamil Society as Language Lab - Film Theatre Literary clubs, Language forums Interview and Talk by experts Exposure to events of national importance Inclusive Education- Concept, Need and significance; Ways of dealing with learners with LD/ Children with Special needs 	Field visit Hands-on experience Group discussion Sharing of learning experience	<ul style="list-style-type: none"> Surveying Checklist Presentation of Field visit reports

Unit III: E-Resources in Teaching & Learning of Tamil (25 hours)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To analyze instructional materials in print and digital form for effective transaction 2. To explore and practice infotainment activities in language	<ul style="list-style-type: none"> Educational Websites Tamil Virtual University Virtual Classrooms Online language games- vocabulary, grammar, spelling etc. 	Presentation of specimen digital resources followed by critique on effectiveness	<ul style="list-style-type: none"> Performance evaluation Participant observation

	<ul style="list-style-type: none"> • E-Library • E-resources for Prose • Film adaptations - literature and social issues • Audio podcasts • Speeches • E-resources for Poems • Critique of poems on websites <p>Recitation</p>	<p>Individual /Pair work</p> <p>Exploring online resources and preparing report</p>	
--	---	---	--

Unit IV: Research Inputs in Tamil Learning (20 hours)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To enable student teachers to promote student effort in learning	<ul style="list-style-type: none"> • Research in Tamil Language Education and Second Language Pedagogy • Identifying and locating significant concerns related to language learning • Action Research • Investigating any one learner issue • Review of Recent Research Studies in Tamil Language • Place of Tamil in Inter disciplinary studies • Current trends 	<p>Intro lecture</p> <p>Enquiry centred discussion</p> <p>Group tasks by assigning specific roles</p>	<ul style="list-style-type: none"> • Style of presentation • Performance • Examine communicative competence

EDU -10.6 :Techno Pedagogic Content Knowledge Analysis : Tamil.

(Theoretical Discourses – 60 & CE – 30 hours)

Objectives :

- To familiarize with the concept of teacher as a Techno-pedagogue.
- Identify ways of networking both for knowledge enrichment and instruction.
Familiarize with the scope and possibilities of Models of teaching as an instructional design.
- Develops an awareness of global trends in Tamil Language education.

Contents :

- Unit I :** TPCCK and Self Instructional Strategies.
Unit II Networking in Language Learning.
Unit III: Models of Teaching in Language Practice.
Unit IV: Global Trends in Tamil Language Education

Unit I :TPCK and Self Instructional Strategies (25 hours)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. Familiarizes with the concept of teacher as Techno-pedagogue 2. Identifies the inter-relationship between Content Knowledge, Pedagogic Knowledge and Technological Knowledge	<ul style="list-style-type: none"> • TCPK. • Techno-Pedagogy • Content Knowledge • Pedagogic Knowledge • Technology Knowledge • Teacher as a Techno-Pedagogue • Nature and scope of Self instructional Strategies • Programmed Instruction - Linear- Branching • Self Instructional modules • Computer Assisted Instruction(CAI) • Computer Based Instruction (CBI) 	Comparison of same content available in different digital formats Group task to identify effectiveness of different digital content in realizing proposed learning objectives. Demonstration of	<ul style="list-style-type: none"> • Preparation of computer-based instructional material

	<ul style="list-style-type: none"> • Computer Assisted Language Learning (CALL) 	<p>teaching content with computer as aid and exclusively using computer</p> <p>Pair and group work to prepare computer-based instructional materials</p>	
--	--	--	--

Unit II: Networking in language learning (20 hours)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. Familiarizes with ways of exploiting Internet resources for both knowledge enrichment and instruction 2. Develops necessary skills for transmission of information and content using websites	<ul style="list-style-type: none"> • Networking:-Teacher –Teacher; Teacher-Institution; Teacher-Student • Forum-Wiki- Blog-Video Conferencing • Professional communities -Tamil Teacher Blogs-Teacher Tube -TSL -LinkedIn • Content writing-Copy Writing- Outsourcing-Transcription 	Introductory talk Demo in Smart Classroom Pair-share Collaborative tasks	<ul style="list-style-type: none"> • Group presentation • Monitoring of activities in virtual world • Checking Popularity on Web

Unit III: Models of Teaching in Language Practice (25 hours)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. Familiarizes with Models of Teaching as an instructional design and identifies ways of employing them for teaching Prose, Poetry, Vocabulary and Grammar	<ul style="list-style-type: none"> • Dimensions of a Model- Syntax, Social System, Principles of Reaction, Support System Instructional and nurturing effects • Direct Instruction Model • Concept Attainment Model • Advance Organizer Model • Synectics Model 	Distribution of Specimen Lessons based on specific Models Group tasks for preparing lessons based on specific	<ul style="list-style-type: none"> • Ability to transact the content/ realize objectives in the plans prepared • Checking effectiveness of Lesson Plans based on specific Models for chosen content

	<ul style="list-style-type: none"> • Role Play Model 	Models	
		Assimilation and accommodation	

Unit IV: Global Trends in Tamil Language Education (20 hours)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. Familiarizes with global trends in Language education 2. Familiarizes with aspects related to translation 3. Gets an awareness of digital resources for Online tutoring	<ul style="list-style-type: none"> • Advanced Trends in Tamil Language Education • Exercises and pedagogic practices in Tamil language • Literary Translation as an exercise- poetry, fiction, prose, world classics from India, translation from English Literature, critical essays etc. • Journal Clubs – Review and discussion of studies and articles in Journals • Advanced Production of digital resources for Online tutoring 	Lecture-cum-discussion on different pedagogical practices. Close reading of literary texts followed by group translation Comparison of articles in journals and magazines to identify form and style required for journal articles followed by critique of articles written by peers Critique of specimen digital resources followed by design and preparation of digital resources for Online tutoring	<ul style="list-style-type: none"> • Prepares samples • Peer evaluation • Performance in tests

EDU – 09.7 : CURRICULUM AND RESOURCES IN THE DIGITAL ERA: MATHEMATICS EDUCATION

(Theoretical Discourses – 60 hours & CE – 30 hours)

Objectives:

- To strengthen the experience of the promising student teachers as Mathematics curriculum designers, transmitters and assessors
- To develop a neo humanistic attitude among the student teachers in the light of Mathematics-Technology-Society-Environment paradigm
- To undertake a self empowerment initiative in transacting the Mathematics Curriculum from a digital outlook
- To provide the required research based Mathematics learning experiences so as to undertake a habit of self development through inquiry and investigation

Contents:

Unit 1: Curriculum Designing in Mathematics Education

Unit 2: Community Based Teaching and Learning Resources in Mathematics

Unit 3: E- Resources in Teaching and Learning Mathematics

Unit 4: Research Trends in Mathematics Education

Unit I: Curriculum Designing in Mathematics Education (20 hours)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To understand curriculum and modern approaches in curriculum construction 2. To understand the modern trends in curriculum construction 3. To familiarise with the principles of Curriculum organisation, 4. To familiarise various curriculum study groups in India and abroad	<ul style="list-style-type: none"> • Concept of Curriculum • New approaches to curriculum Construction • Critical Pedagogy, • Problem Based Learning, • Constructivist Learning • Reflective learning • Experiential learning • Modern trends in curriculum construction • objective based • child centred • correlation 	Meaningful verbal expression Buzz session PBL Peer instruction Seminar Web Streaming Blog reading	<ul style="list-style-type: none"> • Performance analysis in group • discussions • Observation • Seminar reports • Participation in the Seminar sessions • Assessment of daily reflections /Assignment

	<ul style="list-style-type: none"> • help for higher education • Reflect as a unified discipline, flexible, practicable etc • Principles of Curriculum organisation – • Topical and Spiral, • Logical and Psychological, • Correlation_ • Curriculum Study Groups - SMP SMSG, NMP, NCERT and SCERT 		
--	---	--	--

Unit II: COMMUNITY BASED TEACHING AND LEARNING RESOURCES IN MATHEMATICS(15 hours)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To make the student teachers understand the need and importance of community based resources in the present scenario 2. To understand the man made resources in the present context 3. To make familiarise with informal learning contexts	<ul style="list-style-type: none"> • Concept of community based resources • Human resources • Natural resources- Mathematical aspects found in Environmental phenomena (congruence, similarity, ratio and proportion, geometric shapes, symmetry etc.) • Man made resources • Mathematics laboratory • Mathematics library • Mathematics Club • * Informal learning contexts such as Mathematics exhibitions, Fair, Field Trip etc. 	Group discussions Meaningful verbal Presentation Power point presentations Assignments Seminar Field trip Community resource mobilization / Contextual analysis	<ul style="list-style-type: none"> • Performance analysis in group discussions • Observation • Seminar reports • Participation in the Seminar

Unit III: E- RESOURCES IN TEACHING AND LEARNING MATHEMATICS (15 hours)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To familiarise with the role of modern technology in the teaching and learning of Mathematics	<ul style="list-style-type: none"> • Digital resources-CD, DVD, Websites, digital text books • Learning management systems- definition and Significance • Identification of E-resources(Web 2.0 tools: - Hot • Potatoes, Teacher Tube, Edublog, • m-learning-Nature and scope • Online Resources 	PowerPoint Presentations Extension talks On line learning Web Streaming Explicit teaching Peer instruction	<ul style="list-style-type: none"> • Documentation • Assessment of individual performance • Think Aloud Sessions

Unit IV: RESEARCH TRENDS IN MATHEMATICS EDUCATION (10 hours)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To understand the need and importance of research in Mathematics education 2. To familiarise the different types of research 3. To identify major thrust areas of research in Mathematics Education	<ul style="list-style-type: none"> • Research in Mathematics Education- Need and importance • Types of Research • Qualitative & Quantitative • Historical, Fundamental and Action Research • Thrust areas of researches in mathematics education 	Net surfing Blog reading Action research Invited lectures	<ul style="list-style-type: none"> • Blog posting • Project report • Documentation

References :

- Aggarwal, J.C. (2001). *Principles, Methods & Techniques of Teaching (2nd ed.)*. New Delhi: Vikas Publishing House Pvt. Ltd.

- Ediger, M. & Rao, D. B. (2000). *Teaching Mathematics Successfully*. New Delhi: Discovery Publishing House.
- James, A.(2005). *Teaching of Mathematics*. New Delhi: Neelkamal Publications,Pvt. Ltd.
- James, A. (2006). *Techniques of Teaching Mathematics*. New Delhi: Neelkamal Publications Pvt. Ltd.
- Joyce, B., Weil, M. & Calhoun, E. (2009). *Models of Teaching (8th ed.)*.New Delhi: PHI Learning Private Limited.
- Kulshreshtha, A. K. (2008). *Teaching of Mathematics*. Meerut: R.Lall Books Depot.
- Kumar,S.& Ratnalikar,D.N.(2003). *Teaching of Mathematics*. New Delhi: Anmol Publications Pvt. Ltd.
- Mangal, S.K. *Teaching of Mathematics*. Ludhiana: Prakash Brothers Educational Publishers.
- Mustafa, M.(2005). *Teaching of Mathematics*. New Delhi: Deep and Deep Publications Pvt. Ltd.
- Orton, A. (2007). *Learning Mathematics.(3rd ed.)*. London: Continuum
- Siddiqui, H.S. & Khan, M.S. (2004). *Models of Teaching - Theory and Research*. New Delhi: Ashish Publishing House.
- Siddiqui, M. H. (2007). *Teaching of Mathematics*. New Delhi: APH Publishing Corporation.
- Wadhwa, S. (2000). *Modern Methods of Teaching Mathematics*. New Delhi: Sarup & Sons.
- Rao, D.B. & Pushpalatha, D.(1995). *Achievement in Mathematics*. New Delhi: Discovery Publishing House.
- Soman, K. *Ganitha sashtra bodhanam*.Thiruvananthapuram: Kerala Bhasha Institute.

EDU – 10.7 :TECHNO- PEDAGOGIC CONTENT KNOWLEDGE ANALYSIS: MATHEMATICS.

(Theoretical Discourses -60 hours & CE -30 hours)

Objectives:

- To undertake a self-empowerment initiative in transacting the Mathematics curriculum from a Techno-Pedagogical Content Knowledge perspective
- To get acquainted with different aspects of collaborative use of information communication technology
- To gain a perspective of basic theories and guiding plans for effective transaction of Mathematics.
- To understand the nature and importance of Mathematics from a global perspective

Contents:

Unit 1: Techno-Pedagogic Content Knowledge and Self Instructional Strategies

Unit 2: Networking in Mathematics Learning

Unit 3: Models of Teaching in Practice

Unit 4: Global Trends in Mathematics Education

Unit 1: Techno-Pedagogic Content Knowledge and Self Instructional Strategies(15 hours)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
<ol style="list-style-type: none"> 1. To acquaint with the concept, meaning and scope of techno-pedagogic Content knowledge 2. To understand the role of the teacher as a techno- pedagogue 3. To enable the student teacher to generate and transact TPCK based content analysis of Secondary school text books and CD resources 4. To help students to practice self-instructional strategies 	<ul style="list-style-type: none"> • Techno-Pedagogy: • Techno-pedagogue-Concept, meaning and scope • Role of teacher as a techno-pedagogue • Concept of TPCK • Interrelationship of Content knowledge, pedagogic knowledge and technological knowledge • Scope and challenges of TPCK • Generation and transaction of TPCK based content analysis of secondary school text books and CD sources • Self Instructional Strategies 	<p>Group discussions</p> <p>Seminars</p> <p>Meaningful verbal presentation</p> <p>Power point presentations</p> <p>Illustrations</p>	<ul style="list-style-type: none"> • Summative evaluation • Performance analysis in group discussions • Observation • Participation in the Seminar • Sessions • Examples cited in their lecture notedramatisation

	Programmed Instruction (Linear, branching) Modular Instruction and CMI	Online assignment Using the possibilities of blogs in networking Video clippings	
--	---	--	--

Unit II: Networking in Mathematics Learning (15 hours)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To familiarise the student teachers with net working as a means of personal and professional growth of teachers 2. To provide hands on experience in online learning	<ul style="list-style-type: none"> • Networking in learning Mathematics • Networking - Meaning and scope • Concept of E-twinning for institutional/professional growth • Creation of personal e-mail ID and BLOGS with a minimum of 5 posts for promoting the teaching and learning of Mathematics 	Demonstrations Illustrations Video clippings Debating Web based illustrations Power point presentations	<ul style="list-style-type: none"> • Document analysis • Student reports • Digital document analysis • Blog posting • (Practicals) • Creation of blog and posting

Unit III: Models of Teaching in Practice (20 hours)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To understand models of teaching 2. To understand the application of major psychological theories	<ul style="list-style-type: none"> • Models of teaching- meaning and Concept • Components of a teaching model • Families of teaching models • Detailed study and practice on Concept • Attainment Model , Inquiry Training Model, • Constructivist Model, Discovery Model. 	Meaningful verbal expression Group discussion Peer tutoring Observation Brain storming Video analysis	<ul style="list-style-type: none"> • Performance analysis in group discussion • Class test • Observation assessment lesson templates using Models of Teaching • (Discussion, Demonstration & criticism lessons)

Unit IV: Global Trends in Mathematics Education (10 hours)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To compare mathematics education across the world 2. To identify recent projects in teaching of Mathematics in India	<ul style="list-style-type: none"> • Comparison of Mathematics Education in World Wide • Mathematics teaching in developed countries-Japan, USA and UK • *Mathematics teaching in developing countries-, India, Pakistan Srilanka • Recent projects in Mathematics teaching in India- IT@school, OFSET, GURU. 	Web streaming Documentation Invited lectures Seminar	<ul style="list-style-type: none"> • Document analysis • Blog posting

References :

- Aggarwal, J.C. (2001). *Principles, Methods & Techniques of Teaching (2nd ed.)*. New Delhi: Vikas Publishing House Pvt. Ltd.
- Bode, H. B. (1927). *Modern educational theories*. New York: Macmillan.
- Ediger, M. & Rao, D. B. (2000). *Teaching Mathematics Successfully*. New Delhi: Discovery Publishing House.
- Good, C.V. (Ed.), *Dictionary of Education, McGraw-Hill, New York, 1959.*

- James, A.(2005). *Teaching of Mathematics*. New Delhi: Neelkamal Publications,Pvt. Ltd.
- James, A. (2006). *Techniques of Teaching Mathematics*. New Delhi: Neelkamal Publications Pvt. Ltd.
- Joyce, B., Weil, M. & Calhoun, E. (2009). *Models of Teaching (8th ed.)*.New Delhi: PHI Learning Private Limited.
- Kulshreshtha, A. K. (2008). *Teaching of Mathematics*. Meerut: R.Lall Books Depot.
- Mustafa, M.(2005). *Teaching of Mathematics*. New Delhi: Deep and Deep Publications Pvt. Ltd.
- Orton, A. (2007).*Learning Mathematics.(3rd ed.)*. London: Continuum
- Siddiqui, H.S. & Khan, M.S. (2004). *Models of Teaching - Theory and Research*. New Delhi: Ashish Publishing House.
- Siddiqui, M. H. (2007). *Teaching of Mathematics*. New Delhi: APH Publishing Corporation.
- Rao, D.B. & Pushpalatha, D.(1995). *Achievement in Mathematics*. New Delhi: Discovery Publishing House.
- Mangal, S.K. *Teaching of Mathematics*. Ludhiana: Prakash Brothers Educational Publishers.
- Kumar,S.& Ratnalikar,D.N.(2003). *Teaching of Mathematics*. New Delhi: Anmol Publications Pvt. Ltd.
- Soman, K. *Ganitha sashtra bodhanam*.Thiruvananthapuram: Kerala Bhasha Institute.
- Wadhwa, S. (2000). *Modern Methods of Teaching Mathematics*. New Delhi: Sarup & Sons.

EDU- 09.8: CURRICULUM AND RESOURCES IN DIGITAL ERA: PHYSICAL SCIENCE EDUCATION

(Theoretical discourses - 60 hrs, CE - 30 hrs)

Objectives:

- To strengthen the experience of the promising student teachers as Science curriculum designers, transmitters and assessors
- To develop a neo humanistic attitude among the student teachers in the light of Science-Technology-Society-Environment paradigm
- To undertake a self empowerment initiative in transacting the Physical Science Curriculum from a digital migrant outlook
- To provide the required research based science learning experiences so as to undertake a habit of self development through inquiry and investigation

Contents:

Unit 1: Curriculum Designing in Physical Science Education

Unit 2: Community Based Teaching and Learning of Physical Science

Unit 3: E-Resources in Teaching and Learning of Physical Science

Unit 4: Research inputs in Physical Science Education

Unit 1: Curriculum Designing in Physical Science Education (20+2=22 hours)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
<ol style="list-style-type: none"> 1. To acquaint with the concepts of curriculum and syllabus 2. To understand and apply the principles of curriculum construction 3. To familiarize with the curriculum organization 4. To familiarize with the recent trends in curriculum construction in state, national and international level 5. To understand correlation of Physical Science within the subject as well as with other subjects. 	<ul style="list-style-type: none"> • Curriculum and syllabus-Meaning. • Hidden curriculum. • Principles of curriculum construction. • Types of curriculum-subject centred, activity centred, core curriculum, • Approaches to curriculum organisation- Concentric approach, Spiral approach, Type study, Topical approach, Historical approach, Nature study, Nature rambling, General science and disciplinary approach • Critical analysis of secondary school curriculum in Physical Science prescribed by SCERT. • Trends in curriculum construction-SCERT 	<p>Meaningful verbal expression</p> <p>Buzz session</p> <p>PBL</p> <p>Peer instruction</p> <p>Seminar</p> <p>Web Streaming</p> <p>Blog reading</p>	<ul style="list-style-type: none"> • Questioning • Role performance analysis in Buzz discussion • Concept mapping • Open book analysis

	<p>and NCERT curriculum, Critical Pedagogy, Issue based curriculum, Problem Based Learning- Main features.</p> <ul style="list-style-type: none"> • Science-A Process Approach (SAPA), Cognitive Acceleration Through Science Education (CASE) / 'Let's Think through Science' • Correlation- Incidental and systematic, Correlation within the subject, Correlation of Physical science with other subjects such as biology, mathematics, language, geography, history, earth science, music, art and craft, life and environment 		
--	--	--	--

Unit 2: Community Based Teaching and Learning of Physical Science (20+10=30 hours)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
<ol style="list-style-type: none"> 1. To acquaint with the concept and significance of community based resources 2. To familiarize various formal and informal learning contexts 3. To identify the contributions of human resources in local community 4. To identify governmental and non-governmental movements for popularizing science 	<ul style="list-style-type: none"> • Community based resources- Meaning , need and significance • Formal science learning contexts • Science library-importance and organisation, web resources • Science laboratory- Importance and organisation, Registers, Rules, Accidents and First aid • Field trips and excursions- Need and importance • Science fairs and exhibition-Significance, organisation and evaluation • Science club-Significance, organisation and activities • Informal learning contexts: • Science Park , museum, historical 	<p>Narrative expression sessions in small or medium groups</p> <p>Assignment</p> <p>Seminar</p> <p>Field trip</p> <p>Community resource mobilization / Contextual analysis</p>	<ul style="list-style-type: none"> • Performance analysis • Quiz programme • K-W-L charting • Profile presentation • Blog posting

	monuments, play grounds, music room, planetarium, ANERT, <ul style="list-style-type: none"> • Human resources-Scientists and eminent personalities in local community • Governmental and non-governmental movements and organisations for popularising science-Science Talent Search Programme, Science Olympiad, KVPY, Sasthraphoshini scheme 		
--	--	--	--

Unit 3: E-Resources in Teaching and Learning of Physical Science (15+5=20 hours)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To identify various digital resources in learning of Physical Science 2. To understand the significance of Learning Management System 3. To familiarize various e-resources 4. To understand nature and scope of m-learning 5. To identify the challenges and means of rescue a teacher should possess in this digital era	<ul style="list-style-type: none"> • Digital resources-CD, DVD, Websites • Learning Management System (LMS)- definition and significance. • Identification of E-resources: • Web 2.0 tools: - Hot Potatoes, Ptadle (Dynamic periodic table), Go!animate, Jing, Edmodo, Teacher Tube, Edjudo, Edublog, Chem Collective • E-learning-Nature and scope • Today's teacher – a digital migrant – challenges and means of rescue 	Web Streaming Explicit teaching Peer instruction	<ul style="list-style-type: none"> • Documentation • Assessment of individual performance • Think Aloud Sessions

Unit 4: Research inputs in Physical Science Education (5+3=8 hours)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To understand the concept and scope of research inputs in science education 2. To identify the role of science teacher as a researcher 3. To identify major thrust areas of research in Physical Science	<ul style="list-style-type: none"> • Research inputs - meaning and scope • Science teacher as a researcher • Thrust areas of research in Physical Science 	Net surfing Blog reading Action research Invited lectures	<ul style="list-style-type: none"> • Blog posting • Project report • Documentation

Reference

- Bunnie Othanel Smith (1950): Fundamentals of Curriculum Development: California, World Book Company.
- David Heywood, Joan parker (2010): The Pedagogy of Physical Science: London, Springer.
- Dimitris Psillos& Hans Niedderer (2002): Teaching and Learning in the Science Laboratory: Netherlands, Kluwer Academic Publishers.
- Funda Ornek, Issa M. Saleh (Eds.) (2012): Contemporary Science Teaching Approaches: Promoting Conceptual Understanding in Science: USA, Information Age Publishing Group.
- Jeffrey Michael Reyes, Duncan Andrade, Ernest Morrell (2008): The Art of Critical Pedagogy: Possibilities for Moving from Theory to Practice: New York, Peterlang Publishing Inc.
- John Wallace, William Loudon (2002): Dilemmas of Science Teaching [electronic resource]: perspectives on problems of practice: New York, Routledge.
- Mariamma Mathew (2014): Teaching science for biological and physical sciences: NAS Publishers: Kerala
- NCSECA (1995):National Science Education Standards USA ,National Academic Press.
- Radha Mohan(2007): Innovative Science Teaching: New Delhi, Prentice Hall of India Pvt Ltd.

EDU – 10.8 : TECHNO-PEDAGOGIC CONTENT KNOWLEDGE ANALYSIS – PHYSICAL SCIENCE

(Theoretical Discourses - 60 hrs, CE - 30 hours)

Objectives:

- To undertake a self-empowerment initiative in transacting the Physical Science curriculum from a Techno-Pedagogical Content Knowledge perspective
- To get acquainted with different aspects of collaborative use of information communication technology
- To gain a perspective of basic theories and guiding plans for effective transaction of physical science
- To understand the nature and importance of physical science from a global perspective

Contents:

Unit 1: Techno-Pedagogic Content Knowledge and Self Instructional Strategies

Unit 2: Networking in Physical Science Learning

Unit 3: Models of Teaching in Practice

Unit 4: Global Trends in Physical Science Education

Unit 1: Techno-Pedagogic Content Knowledge and Self Instructional Strategies (15 + 8 =23 hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To conceptualize the basic principles of Techno-Pedagogic Content Knowledge Analysis in Physical Science Teaching and Learning 2. To identify the role of science teacher as a techno-pedagogue 3. To understand various Self Instructional Strategies	<ul style="list-style-type: none"> • Techno-Pedagogic Content Knowledge Paradigm-Interrelationship of Content Knowledge, Pedagogic Knowledge and Technological Knowledge, • TPCK based content analysis of selected units of the secondary readers in Physical Science. • Science teacher as a techno-pedagogue. • Techno-pedagogic competencies, • Self Instructional Strategies- Meaning, Types- Programmed Instruction (Linear, branching), Modular Instruction, Personalized System of Instruction, CAI and CMI 	Small group discussion Documentation Web searching Self-study Power Point Presentations Seminar Didactic Questioning	<ul style="list-style-type: none"> • Participant observation • Document analysis • On-task behaviour in class • Reflective journal

Unit 2: Networking in Physical Science Learning (14 +10 = 24 hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To understand the role and purposes of networking in learning physical science 2. To acquaint with the concept of e-twinning.	<ul style="list-style-type: none"> • Networking - Meaning and scope • Networking in learning of Physical Science- Purposes Types- Technical, Personal and Institutional • e-twinning for institutional or professional growth in learning of Physical Science 	Net surfing Blog reading Invited lectures Digital Modular Expositions	<ul style="list-style-type: none"> • Digital document analysis • Blog posting • Debate • Online test

Unit 3: Models of Teaching in Practice (25 +20 = 45 hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To understand the application of major psychological theories 2. To familiarize with various thinking skills 3. To understand models of teaching	<ul style="list-style-type: none"> • Psychological theories for learning science- Piaget, Bruner, Gagne, Vygotsky and Ausubel, Gardener's Multiple Intelligence Theory • Thinking skills - critical thinking, creative thinking, reflective thinking • Models of teaching-Concept Attainment Model, Inquiry Training Model, Advance Organiser Model, Constructivist and 5E model 	Meaningful verbal expression Group discussion Peer tutoring Observation Brain storming Video analysis	<ul style="list-style-type: none"> • Analysis in group discussion • Class test

Unit 4: Global Trends in Physical Science Education (18 +10 = 28hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To compare science education across the world 2. To identify recent projects in science teaching in India	<ul style="list-style-type: none"> • Comparative Science Education World Wide-Science teaching in developed countries-Australia, Canada-Science teaching in developing countries-Indonesia, Srilanka • Recent projects in science teaching in India-it@school, OFSET, GURU 	Web streaming Documentation Invited lectures	<ul style="list-style-type: none"> • Document analysis • Blog posting

Reference:

- AACTE Committee (2008): Handbook of Technological Pedagogical Content Knowledge (TPCK) for Educators: Washington, DC, Rutledge/Taylor & Francis
- Bhattacharya S.P. (1994): Models of Teaching: New Delhi, Regency Publications.
- Bruce R. Joyce, Marsha Weil and Emily Calhoun (2011): Models of Teaching (7th Ed.): USA, Pearson Education
- Frank Rennie & Tara Morrison (2013): E-Learning and Social Networking Handbook (Second Edition): New York, Routledge.
- Frank Rennie, Tara Morrison (2013): e-Learning and Social Networking Handbook: Resources for Higher Education: New York, Taylor & Francis.
- Janie Gross Stein, Richard Stein (Ed.) (2001): Network of Knowledge: Collaborative Innovation in International Learning: Toronto, Canada, University of Toronto Press Incorporated
- Mangal S.K. & Uma Mangal (2009): Essentials of Educational Technology: New Delhi, PHI Learning Pvt Ltd.
- Mariamma Mathew (2014): Teaching science for biological and physical sciences: NAS Publishers: Kerala

EDU – 09 .9 : CURRICULUM AND RESOURCES IN DIGITAL ERA : NATURAL SCIENCE EDUCATION

(Theoretical discourses -50 Marks/60 hours & CE-25 Marks /30 hours)

OBJECTIVES : To enable the student teachers to:

- Understand the different types of resources for teaching Natural Science.
- Locate different reference materials related with Biological Science.
- Identify the school and community resources for better Biological Science learning.
- Familiarize and understand the natural resources, man-made resources in teaching Natural Science.
- Familiarize the different club activities related with Natural Science.
- Understand the steps of organizing field trip, excursion, science fair & exhibition.
- Understand the different approaches of organizing Biological Science curriculum.
- Familiarize the modern trends in curriculum movements in India and abroad.
- Familiarize and understand the e-learning resources for teaching Natural Science.
- Identify research inputs in genetic engineering, medical field & environmental issues.

CONTENTS :

- Unit I** : Resource for Natural Science Curriculum Transaction.
Unit II : Curriculum Trends in Biological Science.
Unit III : E – Resources in teaching Learning Natural Science.
Unit IV : An Introduction to Research Inputs in Biology.

UNIT-I-RESOURCE FOR NATURAL SCIENCE CURRICULUM TRANSACTION (Theory hours-20)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To understand different types of resources. 2. To understand the relevance & scope of different types of resources. 3. To understand, and utilize school based resources in formal and informal learning.	<ul style="list-style-type: none"> • 1.1 Different types of resources. • 1.2 Relevance & scope of different types of resources. • 1.3 School based Resources For Science Learning. • 1.3.1 Library –School and Class library-importance and its organization, Types of resources for accessing information- book, 	Group discussion Seminar PBL Multimedia and interdisciplinary approach.	<ul style="list-style-type: none"> • Quiz programme. • Participation in group discussion. • Questioning. • On-task behavior • Field trip report. • Assignments • Seminar presentation.

<p>4. To develop skill in designing a high school biology laboratory.</p> <p>5. To organize different extra-curricular activities related to science teaching.</p> <p>6. To identify, and utilize different community resources for science learning.</p>	<p>non book and web resources.</p> <ul style="list-style-type: none"> • 1.3.2 Science laboratory- significance and organization –Designing a high school biology laboratory. • 1.3.4 Club activities - Science club, Science fair, Exhibition, Manuscript magazine, Field trip & Excursion, Community awareness programme and Living corners- Pisciculture, different types of garden(Vegetable, ornamental and Herbal). • 1.3.5Text books- qualities of good science text book, Text book analysis. Supplementary reader. • 1.3.6 Hand book for teachers and Work book for learner. • 1.3.7 Reference material-encyclopedia, newsletters, magazines, journals. • 1.4 Community Based Resources For effective Science Learning • 1.4.1 Community resources for science learning- relevance and scope. • 1.4.2 Identification of Community resources for better science teaching and learning. • 1.4.3 Human resources- e.g. Resource persons/ eminent teachers/ personalities/ scientists in the local community. • 1.4.4 Natural Resources- e.g. .pond /lake/river/sea/ forest/ wet land/ sacred grooves etc. • 1.1.5 Man made Resources- e.g. Museum/ Zoo/ Botanical garden/ Agrifarms / hospital, Krishi Vignjan Kendrum /Research centers under State & Central government. 	<p>Team teaching.</p> <p>Peer tutoring.</p> <p>Meaningful verbal expression.</p> <p>Organizing & designing science library, science laboratory.</p>	
---	--	---	--

UNIT II .CURRICULUM TRENDS IN BIOLOGICAL SCIENCE (Theory hours-18)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
<ol style="list-style-type: none"> 1. To understand the Meaning-functions and Principles of curriculum construction. 2. To familiarize different types of curriculum. 3. To understand and apply the principles of curriculum construction. 4. To understand and compare the curricular movements in national and international level. 5. To understand the types of correlation in the teaching learning process. 6. To understand the importance of correlation in the teaching learning process. 7. To make a Critical analysis of the prevailing secondary school biology syllabus. 	<ul style="list-style-type: none"> • 2.1 Curriculum-Meaning-functions and, Principles of curriculum construction, • Types of curriculum- subject centered, activity centered, integrated and hidden curriculum. • 2.2 Approaches to curriculum organization- Topical, Subject, Concentric, Spiral and Integrated/ Correlation approach (Incidental & Systematic correlation). • 2.3 Factors affecting curriculum organization. • 2.4 Criteria of a good Natural science curriculum. • 2.5 Critical analysis of the prevailing secondary school biology syllabus. • 2.6 Curriculum reforms in India (NCERT) & abroad (BSCS). 	<p>Meaningful verbal expression</p> <p>Group discussion</p> <p>Small group sessions</p> <p>Peer instruction</p> <p>Narrative expression sessions in small or medium groups.</p> <p>Brain storming.</p> <p>Seminar.</p> <p>PBL.</p> <p>Modular approach.</p> <p>Multimedia and interdisciplinary approach.</p> <p>Team teaching.</p> <p>Peer tutoring</p>	<ul style="list-style-type: none"> • Participation in group discussion. • Questioning. • On-task behavior in class. • Tests. • Science dairy. • Daily reflective journal. • Participant observation.

UNIT III E-RESOURCES IN TEACHING LEARNING OF NATURAL SCIENCE (ICT Materials) (Theory hours-11)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
<ol style="list-style-type: none"> To understand and compare the Educational CDs developed by SIET, NCERT, IT@ school for the learning of biology at secondary level. To familiarize you tube resources related with HS Biology. To familiarize e-journals, e-books related with Biology. To understand about the use of e-resources. To develop a skill in using e-resources. To understand the meaning-relevance & scope of virtual laboratory & virtual dissection. To identify & use virtual laboratory & virtual dissection related with HS Biology. 	<ul style="list-style-type: none"> 3.1 An introduction to the contribution of e-learning materials developed by SIET, NCERT & IT@ school for the learning of biology at secondary level. 3.2 You tube resources related with HS Biology. 3.3 An introduction to e-journals, e-books related with Biology 3.4 An introduction to websites devoted for science teaching & learning. 3.5 Meaning-relevance & scope of virtual laboratory & virtual dissection. 	<p>Modular approach.</p> <p>Multimedia and inter disciplinary approach.</p> <p>Team teaching.</p> <p>Peer tutoring</p> <p>Meaningful verbal expression</p> <p>Group discussion</p> <p>Using internet effectively for collecting information.</p>	<ul style="list-style-type: none"> Participation in group discussion. Questioning. On-task behavior Report of video analysis. Involvement in using e-journals, e-books related with Biology. Involvement in using virtual laboratory & virtual dissection.

UNIT-IV AN INTRODUCTION TO RESEARCH INPUTS IN BIOLOGY(Theory hours-11,)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
<ol style="list-style-type: none"> To understand research inputs in genetic engineering, medical sciences & Environmental issues. To understand the emerging challenges related with organ 	<ul style="list-style-type: none"> 4.1 Research inputs in genetic engineering (Give brief introduction about Human Genome Project, Tissue culture). 4.2 Research inputs in medical 	<p>Multimedia and inter disciplinary approach.</p> <p>Team teaching.</p>	<ul style="list-style-type: none"> Peer tutoring Meaningful verbal expression Group discussion Assignment

<p>transplantation.</p> <ol style="list-style-type: none"> 3. To get an idea about the importance of family farming. 4. To get an idea about the existing waste disposal measures in a scientific way. 5. To suggest innovative measures to waste disposal. 	<p>sciences(Meaning and scope of Organ transplantation- a new hope for life, Nano-technological applications in medical field)</p> <ul style="list-style-type: none"> • 4.3Research inputs inEnvironmental issues (Family farming, waste disposal). 	<p>Peer tutoring Meaningful verbal expression Group discussion Assignment Seminar</p>	<ul style="list-style-type: none"> • Seminar presentation.
--	--	---	---

References

- Anderson R.D et al. (1992): Issues of Curriculum Reform in Science, Mathematics and Higher Order Thinking Across the Disciplines: U.S.A, The Curriculum Reform Project.
- Carin& Robert Sund (1989): Teaching Modern Science (5th Ed.): U.S.A, Merill Publishing Co.
- Chauhan S. S. (1985): Innovation in Teaching and Learning Process: New Delhi, Vikas Publishing House.
- DavarMonika(2012):Teaching of Science: India, PHI Learning Pvt. Ltd.
- Edgar Dale (1963): Audio-Visual Methods in Teaching (Revised Ed.): New York, Thy Dryden Press.
- Falvery P., Holbrook J. &Conian D. (1994): Assessing Students: Hongkong, Longmans Publications.
- Gupta S.K. (1985): Teaching of Physical Science in Secondary Schools: New Delhi, Sterling Publications.
- Harms N. &Yager R. (1981): What Research Says to the Science Teacher (Vol. 3): USA, National Science Teachers Association.
- Heiss, Obourn& Hoffman (1985): Modern Science in Secondary Schools: New Delhi, SterlingPublications.
- Husen T., Keeves J.P. (Eds.) (1991): Issues in Science Education: Oxford, Pergamon Press.
- Jenkins E. W. (2000): Innovations in Science and Technology Education (Vol. VII): Paris, UNESCO.
- KalraR.M.& Gupta Vandana(2012): Teaching of Science - A Modern Approach: India, PHI Learning Pvt. Ltd.
- Khana S. D., Sexena V.R., Lamba T.P. & Murthy V. (1976): Technology of Teaching: New Delhi, Doaba House.
- MintzesJoelJ., WanderseeJames H.&Novak Joseph D. (Ed.) (2005): Teaching of Science for Understanding-A Human Constructivist View: California, Academic press, USA.
- Nair, C.P.S. (1971): Teaching of Science in our Schools: New Delhi, Sultan Chand & Co. (Pvt.) Limited.
- Natrajan C. (1997): Activity Based Foundation Course on Science Technology and Society: Mumbai, HomiBhaba Centre for Science Education.
- Nayak (2003): Teaching of Physics: New Delhi, APH Publications.
- Pandey (2003): Major Issues in Science Teaching: New Delhi, Sumit Publications.
- Bunnie Othanel Smith (1950): Fundamentals of Curriculum Development: California, World Book Company.
- David Heywood, Joan parker (2010): The Pedagogy of Physical Science: London, Springer.

- Carl Simmons, Claire Hawkins, (2009). Teaching ICT-Developing as Reflective Secondary teacher, Sage South Asia education, New Delhi.
- Ramakrishna, (2012). Methodology of Teaching Life Sciences, Dorling Kindersley Pvt Ltd, India.
- Jessy Mathews, (2008). Teaching of Natural Science –theory, Perspectives and practices. Methodology of teaching life sciences
- Radha Mohan, (2007). Innovative Science Teaching for Physical Science teachers (3rd ed) PHL Learning, New Delhi.
- Narendera Vaidhya, (2006). Science Teaching in School for the 21st Century, Deep and Deep Publications Pvt, New Delhi.
- Mathew, T.K., and Molikutty, T.M, (2006). Science Education- Theoretical Base of Teaching and Pedagogic Analysis, Rainbow Book Publishers, Kerala.
- Dimitris Psillos & Hans Niedderer (2002): Teaching and Learning in the Science Laboratory: Netherlands, Kluwer Academic Publishers.
- Frederick M. Hess (2006): Educational Entrepreneurship: realities, challenges, possibilities: Harvard, Harvard Education Press.
- Funda Ornek, Issa M. Saleh (Eds.) (2012): Contemporary Science Teaching Approaches: Promoting Conceptual Understanding in Science: USA, Information Age Publishing Group.
- Jeffrey Michael Reyes, Duncan Andrade, Ernest Morrell (2008): The Art of Critical Pedagogy: Possibilities for Moving from Theory to Practice: New York, Peter Lang Publishing Inc.
- John Wallace, William Loudon (2002): Dilemmas of Science Teaching [electronic resource]: perspectives on problems of practice: New York, Routledge.
- NCSECA (1995): National Science Education Standards USA, National Academic Press.
- Radha Mohan (2007): Innovative Science Teaching: New Delhi, Prentice Hall of India Pvt Ltd.
- AACTE Committee (2008): Handbook of Technological Pedagogical Content Knowledge (TPCK) for Educators: Washington, DC, Routledge/Taylor & Francis
- Chao, Lee (ed.) (2012) Cloud Computing for Teaching and Learning: Strategies for Design and Implementation: Hershey, PA, IGI Global.

INTERNET REFERENCES

- <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.91....>
- http://en.wikipedia.org/wiki/Technological_Pedagogical_Conte...
- <http://www.amazon.com/books/dp/0805863567>
- <http://ictevangelist.com/technological-pedagogical-and-conte>
- How the web will change the classroom by Mohan, R., (2007).
- <https://d1jt5u2soh3gkt.clc>

EDU – 10.9 : TECHNO-PEDAGOGIC CONTENT KNOWLEDGE ANALYSIS -NATURAL SCIENCE.

(Theoretical Discourses -50 Marks/60 hours & CE-25 Marks /30 hours)

OBJECTIVES :To enable the student teacher to:

- develop Understanding And Application Of Techno-Pedagogic Content Knowledge Analysis
- develop Skill In Preparation And Practice Of Technology Enhanced Learning Materials.
- understand And Apply Online Assessment And Competency Enhancement Avenues.
- identify Net Working As A Means Of Personal And Professional Growth
- understand Classroom Management Principles Essential For Effective Pedagogic Transaction.
- get An Idea About Global Trends In Science Education.
- familiarize The Modern Trends In Science Education At Global Level.
- get An Idea About Self Instructional Strategies.
- understand About Self Instructional Strategies.

CONTENTS :

Unit – I : Technological Pedagogical Analysis Of Content Knowledge (TPACK) .

Unit – II : Net working in Science Learning.

Unit – III : Models of teaching & Self-instructional Strategies.

Unit – IV : Global trends in Natural science Education.

UNIT.I TECHNOLOGICAL PEDAGOGICAL ANALYSIS OF CONTENT KNOWLEDGE (TPACK)–A CONCEPTUAL ANALYSIS. (Hours-22)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To understand about the conceptual analysis of Technological Pedagogical Content Knowledge (TPCK) 2. To understand and find inter relationships of different areas of TPACK 3. To develop skill in Technological Pedagogical Analysis of Content	<ul style="list-style-type: none"> • 1.1 Technological Pedagogical Analysis of Content Knowledge (TPACK)-meaning and scope. Different knowledge areas of TPACK- • Content Knowledge (CK), • Pedagogical Knowledge (PK), • Technology Knowledge (TK) • Pedagogical Content Knowledge (PCK), • Technological Content Knowledge (TCK), • Technological Pedagogical Knowledge 	Meaningful verbal expression. Group discussion. Narrative expression sessions in small or medium groups. Multimedia and interdisciplinary	<ul style="list-style-type: none"> • Participation in group discussion. • Questioning. • On-task behavior in class. • Tests. • Science diary. • Daily reflective journal • Participant observation • Report of Technological Pedagogical Content

Knowledge (TPACK) of Secondary School Biology.	(TPK), and <ul style="list-style-type: none"> • Technological Pedagogical Content Knowledge (TPCK). • Interrelationships of different areas of TPACK • 1.2 Technological Pedagogical Content Knowledge Analysis of Secondary School Biology. 	approach. Team teaching. Peer tutoring	Knowledge Analysis of Secondary School Biology.
--	---	--	---

UNIT-II NETWORKING IN SCIENCE LEARNING (Hours-18)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
<ol style="list-style-type: none"> 1. To understand the meaning & scope of networking in science teaching. 2. To develop skill in Networking through different ways. 3. To develop skill in the preparation and practice of ICT and Multimedia based materials in the teaching learning process of science 4. To develop skill in the preparation and practice of online assessment tools in science teaching learning process. 5. To understand different competitive examinations for teachers. 6. To understand the Educational entrepreneurship - Career possibilities for trained graduate and post graduate science students 	<ul style="list-style-type: none"> • Networking- meaning and scope of Net working in science learning. • Development of one Blog for Natural science class and 5 postings by each student for promoting teaching learning/social issues/challenges etc. • e-twinning- means for institutional and professional growth. • 2.4 ICT and Multimedia as technology enhanced communication devises in the teaching of life science- Collection/ Preparation of e-materials for pedagogic transaction of secondary school biology syllabus including environmental issues affecting local community(Power points, video clippings, pictures, instructional materials) • 2.3 Online Assessment And Competency Enhancement avenues. • 2.3.1Online assessment- -meaning and scope, Down load an Online quiz maker and 	<p>Group discussion</p> <p>Seminar</p> <p>Personality profile presentation</p> <p>Reflective practices.</p> <p>PBL</p> <p>Multimedia and interdisciplinary approach.</p> <p>Team teaching.</p> <p>Peer tutoring</p> <p>Net working</p> <p>e-twinning</p> <p>Blog posting</p>	<ul style="list-style-type: none"> • Online assessment • Quiz programme. • Participation in group discussion. • Questioning. • On-task behavior. • Student's portfolio. • Blog posting • Net working • e-twinning • Preparation of e-materials • Online Assessment

	<p>use it during practice teaching.</p> <ul style="list-style-type: none"> • 2.3.2 Competitive examinations for secondary school students – Science Talent Search Scheme, Science Olympiad, Google science fair. • 2.3.3 Competitive Examinations for teachers - KTET, NTET, TET. • 2.3.4 Educational entrepreneurship - Career possibilities for trained graduate and post graduate science students. 		
--	--	--	--

UNIT-III MODELS OF TEACHING & SELF INSTRUCTIONAL STRATEGIES (Hours-15)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
<ol style="list-style-type: none"> 1. To understand the basic elements in the models of teaching 2. To develop skill in selecting suitable models of teaching for transacting pedagogy. 3. To develop and design lesson plans based on Concept Attainment Model(CAM), Inquiry Training Model(ITM), 5E Model of BSCS, Inductive Thinking Model & Role play model. 4. To develop skill in selecting suitable self-instructional strategies for transacting pedagogy. 5. To understand about Computer Assisted Instruction (CAI).Its advantages & disadvantages. 6. To understand & prepare Modules. 	<ul style="list-style-type: none"> • 3.1 Models of teaching: Introduction, Elements and Families of models of teaching. • Concept Attainment Model(CAM), • Inquiry Training Model(ITM), • 5E Model of BSCS, • Inductive Thinking Model , • Role play model • 3.3 Self Instructional Strategies- An overview about Self Instructional Strategies, advantages & disadvantages. • 3.4 An introduction to Computer Assisted Instruction(CAI), its advantages & disadvantages. • 3.5 Modules, its advantages & disadvantages. 	<p>Meaningful verbal expression</p> <p>Group discussion</p> <p>Small group sessions</p> <p>Peer instruction</p> <p>Narrative expression sessions in small or medium groups.</p> <p>Brain storming.</p> <p>PBL.</p> <p>Modular approach.</p> <p>Multimedia and interdisciplinary approach.</p>	<ul style="list-style-type: none"> • Participation in group discussion. • Questioning. • On-task behavior in class. • Tests. • Science diary. • Daily reflective journal • Lesson plans based on models of teaching. • Module preparation

		Concept Attainment Model(CAM) Inquiry Training Model(ITM) 5E Model of BSCS Inductive Thinking Model Role play model.	
--	--	--	--

UNIT-IV GLOBAL TRENDS IN SCIENCE EDUCATION. Hours-5)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To familiarize & understand about the global trends in education.	<ul style="list-style-type: none"> • 4.1An introduction to global trends in education • 4.1.1University & career readiness • 4.1.2 Longitudinal perspectives • 4.1.3 Digital content • 4.1.4 Individualized learning 	Narrative expression sessions in small or medium groups. Meaningful verbal expression Multimedia approach Discussion	<ul style="list-style-type: none"> • Participation in group discussion. • Questioning. • On-task behavior in class. • Tests. • Science dairy.

Referances

- AACTE Committee (2008): Handbook of Technological Pedagogical Content Knowledge (TPCK) for Educators: Washington, DC, Rutledge/Taylor & Francis
- Chao, Lee (ed.) (2012) Cloud Computing for Teaching and Learning: Strategies for Design and Implementation: Hershey, PA, IGI Global.
- Joyce, Bruce, and Weil, Marsha,(1997). Models of Teaching (5thEdn.) New Delhi: Prentice Hall of India.
- Bybee, R., Taylor, J. A., Gardner, A., Van Scotter, P., Carlson, J., Westbrook, A., Landes, N. (2006). *The BSCS 5E Instructional Model: Origins and Effectiveness.*, Colorado Springs, CO: BSCS.
- Bybee, R.W., (2010), *The Teaching Science: 21st Century Perspectives*, Arlington V A: NSTA Press.

- Senan, Divya C., J.V, Asha., (2012), *Science Pedagogy through Constructivist Multimedia Learning Material: Design of a Strategy*, Germany, Lambert Academic Publishing.
- Bybee R.W., The BSCS 5E instructional model and 21st century skills. Paper prepared for the Workshop on Exploring the Intersection of Science Education and the Development of 21st Century Skills, National Research Council. 2009. Available:
- Radha Mohan , (2007). *Innovative Science Teaching for Physical Science teachers* (3rded) PHL learning, New Delhi
- Jessy Mathews, (2008). *Teaching of Natural Science –Theory, Perspectives and Practices, Methodology of Teaching Life Sciences.*
- Narendera Vaidhya, (2006). *Science Teaching in School for the 21st Century*, deep and deep publications PVT, New Delhi.
- Mujibul Hassan Siddiqui., (1991) *Models of Teaching*, Ashish publishing house, New Delhi.
- Senan, Divya C., J.V, Asha., (2012), *Science Pedagogy through Constructivist Multimedia Learning Material: Design of a Strategy*, Germany, Lambert Academic Publishing.
- Radha Mohan , (2007). *Innovative Science Teaching for Physical Science teachers* (3rded) PHL learning, New Delhi
- Jessy Mathews, (2008). *Teaching of Natural Science –Theory, Perspectives and Practices, Methodology of Teaching Life Sciences.*
- Narendera Vaidhya, (2006). *Science Teaching in School for the 21st Century*, deep and deep publications PVT, New Delhi.
- Mujibul Hassan Siddiqui., (1991) *Models of Teaching*, Ashish publishing house, New Delhi.
- Clark, R.C. and R.E. Mayer., (2002). *E.Learning and Science of instruction*, Pfeiffer, San Francisco.
- R.A. Sharma ., (2009). *Information and Communication Technology in Teaching*, Lall Book Depot, Meerat.
- Jahitha Begum, Natesan, G, Sampath, (2011). *ICT in Teaching Learning*, Balaji offset, Delhi.
- Krishna Sagar, (2005). *ITCs and Teacher Training*, Tarun offset, Delhi.
- Hussain M. (2012). *E.Learning*, Srikrishna offset Pvt, Delhi
- Anshulkaushik., (2007). *Computer security – insiders view to Network forensics*, Khana book publishing company, Delhi
- Carl Simmons, Claire Hawkins (2009). *Teaching ICT-Developing as a Reflective Secondary Teacher*, Sage South Asia education, New Delhi
- Chao, Lee (ed.) (2012) *Cloud Computing for Teaching and Learning: Strategies for Design and Implementation*: Hershey, PA, IGI Global.
- Frank Rennie & Tara Morrison (2013): *E-Learning and Social Networking Handbook* (Second Edition): New York, Routledge.
- Frank Rennie, Tara Morrison (2013): *e-Learning and Social Networking Handbook: Resources for Higher Education*: New York, Taylor & Francis
- Janie Gross Stein, Richard Stein (Ed.) (2001): *Network of Knowledge: Collaborative Innovation in International Learning*: Toronto, Canada, University of Toronto Press Incorporated
- Mangal S. K. & Uma Mangal (2009): *Essentials of Educational Technology*: New Delhi, PHI Learning Pvt Ltd.
- Rena M. Palloff & Keith Pratt (2009): *Assessing the Online Learner*: San Francisco, Jossey-Bass.
- Tony Ghaye (2011): *Teaching and Learning Through Reflective Practice* (Second Edition): New York, Routledge.

INTERNET REFERENCES

- <http://www7.nationalacademies.org/bose/21CentSKillUploads.html>
- www.BuildingClassroomDiscipline.com

- <http://www.theteachersatrisk.com/2010/07/18/most-popular-blog-about-classroom-management/>
- <http://www.theteachersguide.com/ClassMagement.htm>
- <http://www7.nationalacademies.org/bose/21CentSKillUploads.html>
- <http://www.theteachersatrisk.com/2010/07/18/most-popular-blog-about-classroom-management>.
- <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.91...>
- http://en.wikipedia.org/wiki/Technological_Pedagogical_Conte...
- <http://www.amazon.com/books/dp/0805863567>
- <http://ictevangelist.com/technological-pedagogical-and-conte>

EDU - 09.10 : CURRICULUM AND RESOURCES IN DIGITAL ERA: SOCIAL SCIENCE EDUCATION

(Theoretical Discourses -50 Marks/60 hours & CE-25 Marks /30 hours)

Objectives :

- To get acquainted with modern principles and trends in the construction and organization of Social Science curriculum
- To become equipped in retrieving suitable teaching learning resources
- To attain proficiency in IT enabled instructional resources and to become talented in applying innovative strategies and approaches for instructional effectiveness.
- To generate a broad perspectives of e-resources in instructional practices and to develop skill in retrieving and transacting Social Science curriculum through e-resources.
- To develop a positive attitude towards research for curriculum development and to adopt& develop innovative teaching learning strategies.

Contents :

Unit 1	Curriculum Designing in Social Science Education
Unit 2	School and Community Based Instructional Resources in Teaching Social Science
Unit 3	E- Resources in Teaching and Learning of Social Science.
Unit 4	Research Trends in Social Science Education

Unit 1: Curriculum Designing in Social Science Education (7 Hours + 4 Hours)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To get acquainted with modern principles and trends in the construction and organization of Social Science curriculum 2. To become conversant with NCF and KCF to develop approaches to Social Science Education	<ul style="list-style-type: none"> • Curriculum – Concept, Principles of designing Social Science curriculum • Approaches, types of curriculum, Modern trends in designing Social Science curriculum. • Brief outline about NCF (2005) KCF (2007) and its approaches in Social science curriculum formation. 	Analytical approach Seminar Co-operative learning Prepare a paper on NCF and KCF and its approaches to Social Science curriculum.	<ul style="list-style-type: none"> • Seminar with slide presentation (CE- Edu. 09)

References

- <http://www.ncert.nic.in/html/pdf/schoolcurriculum/framework>
- [http://www.ssamis.com/web/downloads/KCF 2007.pdf](http://www.ssamis.com/web/downloads/KCF%202007.pdf)
- <http://www.case.edu/artsci/engl/emmons/writing/pedagogy>
- Rao, Bhaskara (2005) Curriculum for Learning to Live Together. New Delhi: Discovery Publishing House.
- Aggarwal, J.C. (1996) A Practical Approach. New Delhi : Vikas Publishing House Pvt. Ltd.
- Singh and Gopal (2004) Teaching Strategies. New Delhi: APH Publishing Corporation.
- Sue, Cowley (2006) A – Z of Teaching. New York: Brij basi Art Press Ltd.
- Aggarwal, J.C. (2003). *Teaching of Social Studies: A Practical Approach*. Mumbai:Vikas Publishing House.
- Kumar, S.P.K & Noushad,P.P.(2009). Social Studies in the Classroom: Trends andMethods.
- Pathak R.P.(2012).Teaching of social studies. Pearson, Delhi
- Ehman & Patrick (1974). Towards Effective Instruction in Social Studies. USA: Houghton Miffln.
- Dash, B. N.(1998). Content cum Methods of Teaching Social Studies. Ludhiana: KalyaniPublishers.
- Edigar, M. & Rao, B. (2003).Teaching Social Studies Successfully. New Delhi: Discovery Pub.House.
- NCF (2005) and KCF (2007)

Unit 2 : School and Community Based Instructional Resources in Teaching Social Science (8 Hrs + 4 Hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
<ul style="list-style-type: none"> • To identify and to utilize community resources for the effective transaction of Social Science Curriculum 	<ul style="list-style-type: none"> • Community Resources- meaning, nature, need and scope in Social Science. • School to community and community to school- The need and role of Social Science clubs in community related curricular programmes • Resources- Historical- Palace, museum, caves, forts, archives etc, Geographical- Planetorium, Mountains, seashore, rift valley etc, Political- Gramasabha, Panchayat, Legislative assembly, memorials etc, Economical- market, bank, stores etc. 	<p>Discussion</p> <p>Prepare a list of community recourses- discuss and present the ways to utilize the community recourses</p> <p>Visit to any one of the community resources.</p>	<ul style="list-style-type: none"> • Field trip to any one site with action plan and report (Practical Sem.2)

References

- <http://cricap.org>
- <http://www.ehow.com/>
- Aggarwal, J.C. (1996) A Practical Approach. New Delhi : Vikas Publishing House Pvt. Ltd.
- Singh and Gopal (2004) Teaching Strategies. New Delhi: APH Publishing Corporation.
- Raj, Rani Bansal (1999). Models of teaching and concepts of learning. New Delhi: Anmol Publications.
- Aggarwal, J.C. (2003). *Teaching of Social Studies: A Practical Approach*. Mumbai:Vikas Publishing House.
- Kumar, S.P.K & Noushad,P.P.(2009). Social Studies in the Classroom: Trends and Methods.
- Pathak R.P.(2012).Teaching of social studies. Pearson, Delhi
- Ehman & Patrick (1974). Towards Effective Instruction in Social Studies. USA: Houghton Mifflin.
- Dash, B. N.(1998). Content cum Methods of Teaching Social Studies. Ludhiana: Kalyani Publishers.
- Edigar, M. & Rao, B. (2003).Teaching Social Studies Successfully. New Delhi: Discovery Pub.House. <http://en.wikipedia.org/wiki/Wiki>

Unit 3: e- Resources in Teaching and Learning of Social Science

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To generate a broad perspectives of e-resources in instructional practices 2. To develop skill in retrieving and transacting Social Science curriculum through e-resources	<ul style="list-style-type: none"> • Concept of e- resources, Web resources, social networking, Educational blogs, e-journals, e-learning, m- learning, web based learning. • Learning Management System (LMS) in the teaching- learning of Social science. • IT enabled instructional resources: On line resources, videos, YouTube resources, animations, film clippings. 	Online learning Web search Blogging and submission of online assignment	<ul style="list-style-type: none"> • Use e-resources to prepare any 4 learning materials • Test for units 1,2 & 3 (CE-Edu. 09)

Reference

- <http://www.bbk.ac.uk/linkinglondon/resources/>
- http://en.wikipedia.org/wiki/Learning_management_system<https://www.itschool.gov.in>
- www.youtube.com/user/itsvicters
- en.wikipedia.org/wiki/IT@School_Project

- victers.itschool.gov.in/
- www.youtube.com/user/itsvicters
- Alexey Semenov, UNESCO, (2005): Information and Communication Technologies in Schools: A Handbook for Teachers.
- Atkins N.J and Atkins J.N, Practical Guide to Audio Visual Technique in Education,
- Battacharjee Shymali, (2007). Media and Mass communication. An introduction. New Delhi: Kanishka Publishers.
- Hoole H.S. Ratnajeewan & Hoole Dushyanthi. (2005). Information and communication technology. New Delhi: Foundation Books PVT. LTD.
- Khan, BoH (1977) Web-based Instruction. Englewood Cliffs: Educational Technology Publications.
- Madhukumar Indira. (2005). Internet based distance learning . New Delhi: Global Network.
- Mayer Richard E(2001); Multimedia Learning, Cambridge University Press, UK. McDonald &Evans Ltd. 1975
- Prasad Janardan, (2007). Audio Visual education. Teaching innovative technique. New Delhi: Kanishka Publishers.
- Rejeseakaran S. (2007) Computer Education and Educational Computing, New Delhi: Neel Kamal Publishing Pvt. Ltd.
- Roblyer, M.D. (2008). Integrating educational technology into teaching. New Delhi: Pearson.
- Sagar Krishna, (2005). ICT Teacher training. New Delhi : Global Network
- Kumar, S.P.K & Noushad,P.P.(2009). Social Studies in the Classroom: Trends and Methods.
- <http://blog.efrontlearning.net>
- <http://www.e-learningforkids.org/courses.html>
- <http://www.teacher.ne>

Unit 4 Research Trends in Social Science Education

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To develop a positive attitude towards research in the curriculum development process and to utilize the research findings in the teaching learning process.	<ul style="list-style-type: none"> • An introduction to Research in Social science Education- Need and importance • Teacher as a researcher in Social science • Analysis of Research outcomes in the teaching and learning of Social Science education. 	<p>Group Discussion</p> <p>Prepare a paper (utilizing internet) on the latest research findings on pedagogical aspects in Social science education and conduct a seminar.</p>	<ul style="list-style-type: none"> • Observe the participation of student teachers in the learning process

Reference

- <http://www.edu.plymouth.ac.uk/resined/actionresearch/arhome.htm>
- Best, John.W & Kahn, James.V. (1999). *Research in Education*. Boston: Allyn and Bacon.
- Leary, Zina O((2010). *Doing your research project*. New Delhi. SAGE
- Aggarwal, J.C. (2003). *Teaching of Social Studies: A Practical Approach*. Mumbai: Vikas Publishing House.
- Kumar, S.P.K & Noushad,P.P.(2009). *Social Studies in the Classroom: Trends and Methods*.
- Pathak R.P.(2012).*Teaching of social studies*. Pearson, Delhi
- Dhand, H. (1991). *Research in Teaching Social Studies*. New delhi: Ashish Publishing House
- Crowder, N.A. (1959). *Action Research to Improve School Practices*. New York: Columbia University.
- <http://en.wikipedia.org/wiki/Wiki>
- www.moodle.org
- <http://www.ncert.nic.in>
- <http://www.ciet.nic.in/>

EDU – 10.10 : TECHNO PEDAGOGIC CONTENT KNOWLEDGE ANALYSIS – SOCIAL SCIENCE

(Theoretical Discourses -50 Marks/60 hours & CE-25 Marks /30 hours)

Objectives

- To conscientize the prospective teachers become a techno- pedagogue and become aware of the concept TPCK
- To grow to be competitive in designing digital texts and e-content in Social Science
- To familiarize with the networking system for institutional and professional growth.
- To get acquainted with the need of creating e-mail and blogs for pedagogical analysis.
- To prepare the prospective teachers as reflective practitioners

Contents :

Unit 1 Techno Pedagogic Content Knowledge Analysis (TPCK) and Self Instructional Strategies

Unit 2 Networking in Social Science Learning

Unit 3 Models of Teaching in Social Science.

Unit 4 Global Trends in Social Science Education

Unit 1 Techno Pedagogic Content Knowledge Analysis (TPCK) and Self Instructional Strategies

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
<ol style="list-style-type: none"> 1. To conscientize the prospective teachers become a techno-pedagogue 2. To become aware of the concept TPCK 3. To become capable of analyzing content based on technology 4. To get aware on self instructional strategies. 	<ul style="list-style-type: none"> • Inter relationship between Technology, Pedagogy and Content. • Teacher as Techno-Pedagogue in Social Science • Scope and purpose of Techno-Pedagogic Content Knowledge Analysis. • Self Instructional Strategies: Importance • Programmed instruction • CAI and CMI • Instructional modules 	<p>Meaningful verbal learning</p> <p>On line learning</p> <p>Group discussion</p> <p>TPCK based content analysis (Selected units of secondary/ higher secondary text books)</p>	<ul style="list-style-type: none"> • Prepare a self explanatory note on 'Teacher as a Techno-Pedagogue' • TPCK based Content analysis on any one unit. • Video script developing & recording & uploading • (CE- Edu.10)

References

- http://en.wikipedia.org/wiki/Technological_Pedagogical_Content
- Refernces:
- Alexey Semenov, UNESCO, (2005): Information and Communication Technologies in Schools: A Handbook for Teachers.
- Atkins N.J and Atkins J.N, Practical Guide to Audio Visual Technique in Education,
- Battacharjee Shymali, (2007). Media and Mass communication. An introduction. New Delhi: Kanishka Publishers.
- Hoole H.S. Ratnajeewan & Hoole Dushyanthi. (2005). Information and communication technology. New Delhi: Foundation Books PVT. LTD.
- Khan, BoH (1977) Web-based Instruction. Englewood Cliffs: Educational Technology Publications.
- Madhukumar Indira. (2005). Internet based distance learning . New Delhi: Global Network.
- Mayer Richard E(2001); Multimedia Learning, Cambridge University Press, UK. McDonald &Evans Ltd. 1975
- Social Science text book of standard 8,9 & 10 of Kerala
- Teachers' Hand book in Social Science for standard 8,9 &10
- Varma, O. P. & Vedanayagam, E. G. (1993). Geography Teaching. N. Delhi: Sterling.
- Cornwell, R. D. (1985). World History in the Twentieth Century. England: Longman.
- Joshi, P. S., Gholkar S.V. (1983). History of Modern India. N. Delhi: S.Chand & Company Ltd.
- Kaur, Dhian & Chandana, R. C. (ed.) (2006). The Earth: Ludhiana: Kalyani Publishers.
- Singh R. L., Singh, Rana, P. B. (2002). Elements of Practical Geography. N. Delhi: Kalyan Publishers.

Unit 2 Networking in Social Science Learning

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To grow to be competitive in designing digital texts and e-content in Social science. 2. To become empower in surfing digital resource for transacting Social science curriculum.	<ul style="list-style-type: none"> • Professional and Institutional growth: Through network-twinning • Student and Institution Networking • Online learning: Concept and system of online learning, virtual learning. • Creation of e-mail ID and blogs • Applications of Social Networking systems 	Discussion Online learning Demonstration Workshop	<ul style="list-style-type: none"> • Observation • Report verification

Reference

- <http://teachinghistory.org/issues-and-research/roundtable>
- www.5learn.co/e-content-development
- www.aptaracorp.com/digital-content-production/econtent-development
- www.ntu.edu.sg/home/sfoo/publications/2002/02ecdl_fmt.pdf
- www.net-security.org
- blog.ebayclassifieds.com
- cybercoyote.org/security/safe-web.html
- Alexey Semenov, UNESCO, (2005): Information and Communication Technologies in Schools: A Handbook for Teachers.
- Atkins N.J and Atkins J.N, Practical Guide to Audio Visual Technique in Education,
- Battacharjee Shymali, (2007). Media and Mass communication. An introduction. New Delhi: Kanishka Publishers.
- Hoole H.S. Ratnajeewan & Hoole Dushyanthi. (2005). Information and communication technology. New Delhi: Foundation Books PVT. LTD.
- Khan, BoH (1977) Web-based Instruction. Englewood Cliffs: Educational Technology Publications.
- Madhukumar Indira. (2005). Internet based distance learning . New Delhi: Global Network.
- Mayer Richard E(2001); Multimedia Learning, Cambridge University Press, UK. McDonald &Evans Ltd. 1975

Unit 3 Models of Teaching

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To acquaint with the concept, families and selected items of Models of Teaching 2. To acquaint with practice of developing lesson transcripts based on selected Models of Teaching.	<ul style="list-style-type: none"> • Models of teaching – Introduction, Operational Heart, Different families • Concept Attainment Model with lesson transcripts • Advance Organizer Model with lesson transcripts • Group Investigation Model with lesson transcripts. • Jurisprudential model & Inquiry Training Model 	Scaffolding strategies Demonstration Simulation Online learning	<ul style="list-style-type: none"> • Discussion lesson-5(ICT-1, activity based-1, Models-3) • Demonstration- 2 (Models) • Criticism (5) • (Practicals – sem-2)

References

- <http://www.guardian.co.uk/higher-education-network/>
- Kumar, S.P.K & Noushad,P.P.(2009). Social Studies in the Classroom: Trends and Methods.
- Joyce,B& Weil, M. (2003). *Models of Teaching* (5th Ed.) New Delhi: Prentice Hall Aggarwal, J.C. (2003). *Teaching of Social Studies: A Practical Approach*.

Unit 4 Global Trends in Social Science Education

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To help the prospective teachers for comparative study of social science education in a global perspective.	<ul style="list-style-type: none"> • Global trends in Social Science education • Social Science education in other states and other Nations. • Comparison of Social Science curriculum, textbook and transactional modalities with other countries. 	<p>Discussion – Web searching.</p> <p>Seminar- compare SS curriculum & Text books of SCERT, NCERT and any one advanced nations.</p>	<ul style="list-style-type: none"> • Assignment & seminar report

References

- http://en.wikipedia.org/wiki/Reflective_practice
- <http://tep.uoregon.edu/showcase/crmodel/strategies>
- Borich, Gary D (2012). Effective teaching methods: Research based practice. New Delhi: Pearson Education
- Social Science text book of standard 8,9 & 10 of Kerala
- Teachers' Hand book in Social Science for standard 8,9&10 -- NCERT Text Books.

EDU- 09.11 : CURRICULUM AND RESOURCES IN DIGITAL ERA - GEOGRAPHY EDUCATION

Hours of interaction: 60 (Instructional) +30 (Activities / Processes)

Objectives :

- To get acquainted with modern principles and trends in the construction and organization of Geography curriculum
- To become equipped in retrieving suitable teaching – learning resources
- To attain proficiency in IT enabled instructional resources and to become talented in applying innovative strategies and approaches for instructional effectiveness
- To generate a broad perspectives of e- resources in instructional practices and to develop skill in retrieving and transacting Geography Curriculum through- e- resources
- To develop a positive attitude towards research for curriculum development and to adopt and develop innovative teaching- learning strategies

CONTENTS :

- Unit 1 : Curriculum Designing in Geography Education
 Unit 2 : School and Community Based instructional Resources in Teaching Geography
 Unit 3 : e- Resources in Teaching and Learning of Geography
 Unit 4 : Research Trends in Geography Education

Unit 1 Curriculum Designing in Geography Education (16 hours + 6 hours)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To get acquainted with concepts, principles and modern trends in the construction and organisation of Geography Curriculum 2. To become conversant with NCF and KCF to develop approaches to Geography Education	<ul style="list-style-type: none"> • Importance and place of Geography in the curriculum • Curriculum – concepts determinants, patterns types, principles and modern trends • Curriculum organisational approaches – spiral /concentric/ topical • An outline of trends, patterns and approaches as suggested in NCF (2005) and KCF (2007) in Geography curriculum formation • Critical analysis of existing HS/HSS Geography curriculum 	Analytical approach Debate Seminar Co-operative learning Web Search Lecture cum discussion	<ul style="list-style-type: none"> • Assessment of learning process and reflections • Prepare a brief sketch of NCF and KCF on Geography curriculum • Seminars • Assignments

		Prepare reports on NCF/ KCF	
--	--	-----------------------------	--

Reference

- <http://www.ncert.nic.in/html/pdf/schoolcurriculum/framework>
- [http://www.ssamis.com/web/downloads/KCF 2007.pdf](http://www.ssamis.com/web/downloads/KCF%202007.pdf)
- <http://www.case.edu/artsci/engl/emmons/writing/pedagogy>
- Rao, Bhaskara (2005) Curriculum for Learning to Live Together New Delhi: Discover, Publishing House
- Singh and Gopal (2004) Teaching Strategies. New Delhi: APH Publishing corporation
- Sue, Cowley (2006) A-Z of Teaching. New York: Brijji basi Art Press Ltd.
- Verma O.P, and Vedanayagam. E.G (1987) Teaching of Geography, Sterling Publishers Private Limited, New Delhi
- Arora M.L (1979) Teaching of Geography, Prakash Brothers, Ludhiane

Unit 2: School and Community Based Instructional Resources in Teaching Geography (18 Hrs + 8 Hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To identify and to utilize community resources for the effective transaction of Geography curriculum 2. To develop an understanding about the significance of Geography room, library, club, museum, excursion and field visits	<ul style="list-style-type: none"> • Community resources- meaning nature need significance and methods of utilization • Natural and man- made resources in Geography • Relationship between school and community- bringing them together • Features significance and way of organizing • Geography room, library, club, museum • Exhibition hairs • Exhibitions/ Fairs • Excursion /field visits 	Lecture cum discussion Meaningful Verbal learning Online learning Visit to any one of the community resource centres Planetarium Archaeological sites CESS, IMD, SOI, Land USE/ Soil	<ul style="list-style-type: none"> • Field visit /study report • Assignments on utilisation of community resources in teaching- learning of Geography

		Survey Departments etc Prepare a list of community resources Discuss and present the ways to utilize the community resources	
--	--	---	--

Reference

- <http://wikipedia.Wikipedia.Org/wiki/wiki>
- <http://cricap.org>
- <http://www.ehow.com>
- Singh and Gopal (2004) Teaching Strategies. New Delhi: APtt Publishing Corporation
- Raj, Rani Bansal (1999) Models of teaching and concepts of learning. New Delhi: Anmol Publications
- AroraM.L (1979) Teaching of Geography, Prakash Brothers, Ludhiane
- Gopill G.H (1966) Teaching of Geography, Macmillan, London
- VermaO.P, and Vedanayagam. E.G (1987) Teaching of Geography, Sterling Publishers Private Limited, New Delhi

Unit 3: E- resources in Teaching and Learning of Geography (16 hours + 6 Hours)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To generate a broad perspective of e- resources in Geography instructional practices 2. To develop skill in- retrieving and transacting Geography curriculum through e- resources 3. To identify the use of ICT in the teaching- learning of Geography	<ul style="list-style-type: none"> • Concept and importance of e- resources, web resources, social networking, Blogs, e- learning, m- learning and web- based learning in Geography • Learning Management systems (LMS virtual library • Virtual library • Application of IT enables instructional resources in Geography online resources, Internet resources video conferencing etc 	Online learning Demonstration Narrative expression Web search Internet access Blogging and submission of online assignments	<ul style="list-style-type: none"> • Use of 4 e-resource to prepare for learning materials • Internal test for units, 1, 2 and 3 CE-I, EDU-09

Reference

- <http://www.e-learningfokids.org/courses.html>
- <http://www.bbk.aciuk/linkinglondon/tesources>
- [http://en.wikipedia.org/wiki/learning management system](http://en.wikipedia.org/wiki/learning_management_system)
- <https://www.itschool.gov.in>
- www.youtube.com/user/itsvictors
- victors.itschool.gov.in
- Roblyer, M.D (2008) Integrating Educational Technology into Teaching. New Delhi. Pearson Publications
- Rajasekharan.S (2007) computer Education. New Delhi: Neel Kamal Publishers Pvt. Ltd
- [En-wikipedia.org/wiki/IT@School-Project](http://en-wikipedia.org/wiki/IT@School-Project)
- Alexey Semenov, UNESCO(2005), Information and Communication Technologies in Schools: A Handbook for Teachers
- Atkins. N.J and Atkins. J.N Practical Guide to AV Technologies in Education
- Khan (1977) web based Instruction. Englewood Cliffs: Educational Technology publications
- Madhukumar, Indira (2005). Internet based distance learning. New Delhi: Global Network
- Sagar Krishna (2005). ICT Teacher Training. New Delhi: Global Network

Unit 4 : Research Trends in Geography Education (10 Hrs + 5 Hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To develop a positive attitude towards research in the curriculum development process and to utilize the research findings in the teaching learning of Geography	<ul style="list-style-type: none"> • Need and significance of research in teaching – learning of Geography • Need for developing innovative techniques and strategies in pedagogy and evaluation in Geography • Teacher as a researcher in geography • Action research in Geography need and significance 	<p>Group discussion</p> <p>Online learning</p> <p>Group discussion</p> <p>Prepare a paper on research in pedagogical aspects</p> <p>Conduct seminar</p>	<ul style="list-style-type: none"> • Online assignment (Practical evaluation) • Assignment preparation • Reflections

Reference

- <http://en.Wikipedia.org/wiki/wiki>
- http://www.edn.playmonth.ac.uk/resined/action_research/arhome.htm
- Best, John.w. and Kahn, James.V (1999) Research in Education. Boston: Allyn and Bacon
- Leary/ Zina.O (2010) Doing Your Research Report New Delhi: SAGE Publications
- Crowder N.A (1959) Action Research to Improve School Practices. New York: Columbia
- Alan Holmeister & Margaret Lake (1990) Research into Practice USA: Allyn & Bacon
- Arora M.L (1979) Teaching of Geography, Prakash Brothers, Ludhiana
- Gopill G.H (1966) Teaching of Geography, Macmillan, London
- Verma O.P, and Vedanayagam. E.G (1987) Teaching of Geography, Sterling Publishers Private Limited, New Delhi
- www.Moodle.org
- <http://www.cet.nic.in/>
- <http://www.ncert.nic.in>

EDU - 10.11 : Techno Pedagogic Content Knowledge Analysis – Geography

Hours of interactions- 60 (instruction) +30 (Activities /Process)

Objectives

- To conscientize the prospective teachers become a techno pedagogue and become aware of the concept TPCK
- To grow to be competitive in designing digital texts and e-content in Geography
- To familiarise with the networking system for intuitional and professional growth
- To get acquainted with the need of creating e- mail and blogs for pedagogical analysis
- To prepare the prospective teachers as reflective practitioners

Contents :

Unit 1 Techno- Pedagogic content Knowledge Analysis (TPCK) and self- Instructional Strategies

Unit 2 Net working in Geography Learning

Unit 3 Models of Teaching in Geography

Unit 4 Global Trends in Geography Education

Unit I. Techno-Pedagogic Content knowledge Analysis (TPCK) and self instructional strategies. (16 Hrs +8 Hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To conscientize the prospective teachers become a techno pedagogue 2. To become aware of the concept of TPCK 3. To become capable of analysing contents based on technology 4. To get an awareness on self – instructional strategies	<ul style="list-style-type: none"> • TPCK- concept, scope, challenges • Inter- relationship with content, pedagogic and technological knowledge • Technological knowledge required for a Geography teachers • Self- instructional strategies Need & Importance CAI & Modular approach 	Meaningful verbal learning On-line learning Group discussion TPCK based content analysis Internet access	<ul style="list-style-type: none"> • Preparing notes • Analysing content based on TPCK • Assignments • Video script developing and uploading

Reference

- [http://en.wikipedia.org/wiki/Technological Pedagogical content](http://en.wikipedia.org/wiki/Technological_Pedagogical_content)
- Alexey Semenov, UNESCO, (2005) Information and Communication Technologies in schools: A Hand book for teachers
- Atkins N.J and Atkins. J.S Practical guide to Audio Visual Technologies in Education
- Battacharjee shymali (2007) Media and Mass communication: An introduction. New Delhi: Kanishka publishers
- Khan, (1997) Web Based instruction, Englewood Cliffs Educational Technology publications
- Madhukumar, Indira (2005) Internet based learning. New Delhi: global Network
- Mayer Richard (2001) Multimedia learning Cambridge University press, UK
- Social Science II text books a std. VIII, IX & X of Kerala
- Techer's Handbook of Std VIII, IX & X Kerala
- Verma O.P, and Vedanayagam. E.G (1987) Teaching of Geography, Sterling Publishers Private Limited, New Delhi
- Arora M.L (1979) Teaching of Geography, Prakash Brothers, Ludhiana

Unit 2 Networking in Geography Education (12 Hrs + 6 Hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To be aware of designing digital texts and e-content in Geography 2. To familiarise with networking system for institutional & Professional growth	<ul style="list-style-type: none"> • Institutional networking and professional growth • Current high-tech classroom techniques • Creation of email ID/Blogs • Concept of on-line learning and virtual learning • E- twinning 	Discussion Online learning Demonstration Internet access Workshop	<ul style="list-style-type: none"> • Observation • Report verification • Internal test for units 1 and 2 (EC- EDU.10) • ICT based lesson and uploading as practical works • Internal test for units 1 & 2 (CE- EDU.10)

Reference

- [http://teaching.history.org/issues-and-research/round table](http://teaching.history.org/issues-and-research/round-table)
- [www.apara.corp.com/digital-content-problem/e-content development](http://www.apara.corp.com/digital-content-problem/e-content-development)
- www.net.security.org
- cybercoyote.org/security/sage-web.html
- [http://en.wikipedia.org/wiki/Technological Pedagogical content](http://en.wikipedia.org/wiki/Technological_Pedagogical_content)

- Alexey Semenov, UNESCO, (2005) Information and Communication Technologies in schools: A Hand book for teachers
- Atkins N.J and Atkins. J.S Practical guide to Audio Visual Technologies in Education
- Battacharjee shymali (2007) Media and Mass communication: An introduction. New Delhi: Kanishka publishers
- Khan, (1997) Web Based instruction, Englewood Cliffs Educational Technology publications
- Madhukumar, Indira (2005) Internet based learning. New Delhi: global Network
- Mayer Richard (2001) Multimedia learning Cambridge University press, UK
- Social Science II text books a std. VIII, IX & X of Kerala
- Techer's Handbook of Std VIII, IX & X Kerala
- Verma O.P, and Vedanayagam. E.G (1987) Teaching of Geography, Sterling Publishers Private Limited, New Delhi
- Arora M.L (1979) Teaching of Geography, Prakash Brothers, Ludhiana

Unit 3 Models of Teaching in Geography (16 Hrs +8 Hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To acquaint with the concept, families and selected items of models of teaching 2. To acquaint with developing lesson transcripts based on selected models of teaching	<ul style="list-style-type: none"> • Models of teaching- definition, concept, significance, essential elements • Families of models of teaching • Ausubel's meaningful verbal learning • Advance organiser, Inquiry training, Jurisprudential and role playing models 	Demonstration Online learning Simulation Scaffolding strategies Lesson transcript preparation Web search	<ul style="list-style-type: none"> • Discussion lesson • Demonstration lesson • Criticism • (Any 3 lessons on models of teaching) • Practical • Assignments

Reference

- <http://www.guardian.c.ul/higher-education-network/>
- Joyce,B& weil,M.(2003) Models of teaching (5th Edition) New Delhi: Pentice Hall
- <http://tep.uoregon.edu/showcase/crmodel/strategies>
- Arora M.L (1979) Teaching of Geography, Prakash Brothers, Ludhiana

Unit 4 Global Trends in Geography Education (17 Hrs + 7 Hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To help the prospective teachers for comparative study of Geography education in a global perspective 2. To be aware the techniques of education for children with special needs	<ul style="list-style-type: none"> • Geography Education global trends in the 21st century in the developed and developing countries in south –East Asia • Quantitative revolution in Geography • Geography education for children with special needs gifted/ slow learners/culturally-deprived- nature, characteristics and activities 	Discussion Web searching Seminars Internet access NCERT Text books Online learning	<ul style="list-style-type: none"> • Seminars • Reporting • Assignment

Reference

- <http://tep.Uorgegon.edu/Showcase/crmodel/strategies>
- borich, gary.D(2012).Effective teaching methods: Research based practice. New Delhi Pearson Education
- NCERT Testbooks
- Teachers handbook in social science for Std.VIII, IX & X of Kerala

EDU - 09.12 : CURRICULUM AND RESOURCES IN DIGITAL ERA: COMMERCE EDUCATION

(Theoretical discourses - 60 Hrs + CE - 30 Hrs)

Objectives

- To get acquainted with modern principles and trends in the construction and organization of commerce curriculum
- To become systematically correlate instructional practices with life of the community to develop better public relations.
- To become equipped in retrieving suitable teaching learning resources
- To attain proficiency in IT enabled instructional resources for preparing text book, work book, handbook, source book etc in commerce.
- To become talented in applying innovative strategies and approaches for instructional effectiveness.
- To develop capability in managing heterogeneous learning set up.
- To generate a broad perspectives of e-resources in instructional practices and to develop skill in retrieving and transacting commerce curriculum through e-resources
- To develop a positive attitude towards research to develop inquiry skills and scientific investigation

Contents:

- Unit 1** Curriculum Designing in Commerce Education
Unit 2 School and Community Based Instructional Resources in Teaching Commerce
Unit 3 E- Resources in Teaching and Learning of Commerce
Unit 4 Research Trends in Commerce Education

Unit 1: Curriculum Designing in Commerce Education (15 Hrs + 6 Hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To get acquainted with modern principles in the construction and designing of commerce curriculum 2. To become conversant with NCF and KCF	<ul style="list-style-type: none"> • Curriculum – Concept, Principles of designing commerce curriculum • Approaches, types of curriculum, Modern trends in designing commerce curriculum. • Brief outline about NCF (2005) KCF (2007) and its relevance in vocational education. 	Analytical approach Debate Seminar Co-operative learning	<ul style="list-style-type: none"> • Group investigation summary reports • Prepare a brief sketch of NCF and KCF

Unit 2 : School and Community Based Instructional Resources in Teaching Commerce (13 Hrs + 7 Hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To develop a desire to take active involvement in community affairs 2. To become systematically correlate instructional practices with life of the community; thereby develop better public relations.	<ul style="list-style-type: none"> • School and community based teaching – learning resources: school to the community and community to the school. • Co-curricular activities-school bank, commerce club, commerce library, commerce laboratory, commerce room etc. 	Discussion Project method Visit to commercial institutions/ industries	<ul style="list-style-type: none"> • Prepare a list of community recourses- discuss and present the ways to utilize the community recourses • Conduct a field study to any one of the resource centers.

Unit 3: e- Resources in Teaching and Learning of Commerce (18 Hrs + 10 Hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To generate a broad perspectives of e-resources in instructional practices 2. To develop skill in retrieving and transacting commerce curriculum through e-resources	<ul style="list-style-type: none"> • Concept of e- resources, Web resources, social networking, Educational blogs, e-journals, pod casting, e-learning, m- learning, web based learning. • Learning management system (LMS) in teaching learning of commerce education. • IT enabled instructional resources: On line resources, videos, YouTube resources, animations, film clippings. 	Online learning Demonstration Narrative expression Web search	<ul style="list-style-type: none"> • Use any e-resources to prepare any 4 learning materials

Unit 4 Research Trends in Commerce Education (14 Hrs +7 Hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To develop a positive attitude towards research 2. To develop inquiry skills and scientific investigation	<ul style="list-style-type: none"> • An introduction to Research in Commerce Education- Need and importance • Commerce Teacher as a researcher • Analysis of Research outcomes in Commerce education both teaching and learning. 	Group Discussion Brain storming Education Journal analysis	<ul style="list-style-type: none"> • Prepare a paper (utilizing internet) on the latest research findings on pedagogical aspects in Commerce and conduct a seminar.

References

- Aggarwal, J.C. (1996) A Practical Approach. New Delhi : Vikas Publishing House Pvt. Ltd.
- Best, John.W & Kahn, James.V. (1999). *Research in Education*. Boston: Allyn and Bacon.
- Borich, Gary D (2012). *Effective teaching methods: Research based practice*. New Delhi: Pearson Education
- Leary, Zina O((2010). *Doing your research project*. New Delhi. SAGE
- Obul, Reddy D. (2000). Re-designing of commerce education in India in the context of changing business environment, *The Journal of Commerce*; Vol. 36(3).
- Raj, Rani Bansal (1999). *Models of teaching and concepts of learning*. New Delhi: Anmol Publications.
- Rao, Bhaskara (2005) *Curriculum for Learning to Live Together*. New Delhi: Discovery Publishing House.
- Seema Rao (1995). *Teaching of Commerce*. New Delhi: Anmol Publications.
- Singh and Gopal (2004) *Teaching Strategies*. New Delhi: APH Publishing Corporation.
- Singh, Y.K. (2007). *Teaching of Commerce*. New Delhi: APH Publishing Corporation.
- Sue, Cowley (2006) *A – Z of Teaching*. New York: Brij basi Art Press Ltd. Raj, Rani Bansal (1999). *New trends in teaching of Commerce: Models of teaching and concepts of learning*. New Delhi: Anmol Publications.
- <http://www.bbk.ac.uk/linkinglondon/resources/>
- http://en.wikipedia.org/wiki/Learn_management_system<https://www.itschool.gov.in>
- www.youtube.com/user/itsvicters
- victers.itschool.gov.in/
- <http://www.edu.plymouth.ac.uk/resined/actionresearch/arhome.html>
- http://www.ssamis.com/web/downloads/KCF_2007.pdf
- en.wikipedia.org/wiki/IT@School_Project
- www.youtube.com/user/itsvicters
- <http://www.ncert.nic.in/html/pdf/schoolcurriculum/framework>
- <http://www.case.edu/artsci/engl/emmons/writing/pedagogy>

EDU – 10.12 : TECHNO- PEDAGOGIC CONTENT KNOWLEDGE ANALYSIS – COMMERCE

(Theoretical discourses - 60 Hrs + CE -30 Hrs)

Objectives :

- To conscientize the prospective teachers become a techno- pedagogue and become aware of the concept TPCK
- To grow to be competitive in designing digital texts and e-content in commerce disciplines
- To become empower in surfing digital resource for transacting commerce curriculum.
- To familiarize with the networking system for institutional and professional growth.
- To get acquainted with the need of creating e-mail and blogs for pedagogical analysis.
- To prepare the prospective teachers as reflective practitioner
- To get acquaint with the principles and designing of assessment mechanisms and capable of implement it.
- To generate a professional aspiration among young world by preparing for competitive / placement exams
- To inculcate a broad perspectives of individualized institution

CONTENTS :

Unit 1 Techno Pedagogic Content Knowledge Analysis (TPCK) and Self Instructional Strategies

Unit 2 Networking in Commerce Learning

Unit 3 Models of Teaching in Commerce

Unit 4 Global Trends in Commerce Education.

Unit 1 Techno Pedagogic Content Knowledge Analysis (TPCK) and Self Instructional Strategies (15 Hrs + 8 Hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To conscientize the prospective teachers become a techno-pedagogue 2. To become aware of the concept TPCK 3. To become capable of analyzing content based on technology	<ul style="list-style-type: none"> • Inter relationship between Technology, Pedagogy and Content, Teacher as Techno-Pedagogue. • Scope and purpose of Techno-Pedagogic Content Knowledge Analysis. • TPCK based content analysis (Selected units) 	Meaningful verbal learning Demonstration On line learning	<ul style="list-style-type: none"> • Prepare a self explanatory note on 'Teacher as a Techno-Pedagogue' • TPCK based Content analysis on any one unit.

	of higher secondary commerce text book) <ul style="list-style-type: none"> • Self Instructional Strategies: Importance • Programmed instruction • CAI,CMI, CML, Instructional modules 	Group discussion	
--	--	------------------	--

Unit 2 Networking in Commerce Learning (13 Hrs + 7 Hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To become competent to analyze the ways in which Professional and Institutional growth established through network twinning. 2. To become skillful while creating e-mail ID and blogs.	<ul style="list-style-type: none"> • Professional and Institutional growth: Through network-twinning • Student and Institution Networking • Online learning: Concept and system of online learning, virtual learning. • Creation of e-mail ID and blogs • Applications of Social Networking systems 	Discussion Online learning Demonstration Workshop Group investigation	<ul style="list-style-type: none"> • Concept maps • Observation • Product presentation • Report verification

Unit 3 Models of Teaching (18 Hrs + 8 Hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To interlock 'models of teaching' in effective instructional practices of commerce education. 2. To categorize, analyzes and applied the varied instructional models in commerce discipline.	<ul style="list-style-type: none"> • Models of teaching – Introduction, Operational Heart, Different families • Concept Attainment Model with lesson templates • Inquiry Training Model with lesson templates • Group Investigation Model • Cognitive Apprenticeship Model • 5 E model with lesson templates 	Demonstration Group discussion Co-operative learning	<ul style="list-style-type: none"> • Discussion lesson (5- three out of five should be Models of Teaching) • Demonstration (2) • Criticism (5/ 3models of teaching)

Unit 4 Global Trends in Commerce Education (14 Hrs + 7 Hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To analyze the global trends in commerce education through comparison between India with other countries. 2. To evaluate the significance of Entrepreneurship Education, Business Education and Accounting Education in modern era.	<ul style="list-style-type: none"> • Global trends in commerce education • Commerce education with India and USA • Entrepreneurship Education – India V/S Japan • Business Education in India and Bangladesh • Accounting Education – Comparison with India and Australia 	Discussion Brain storming Inductive strategies Thinking strategies	<ul style="list-style-type: none"> • Idea presentation grid • Assignment and seminar reports

References

- Raj, Rani Bansal (1999). New trends in teaching of Commerce: Models of teaching and concepts of learning. New Delhi: Anmol Publications.
- <http://tep.uoregon.edu/showcase/crmodel/strategies>
- http://en.wikipedia.org/wiki/Entrepreneurship_education
- <http://www.guardian.co.uk/higher-education-network>
- http://en.wikipedia.org/wiki/Technological_Pedagogical_Content
- <http://teachinghistory.org/issues-and-research/roundtable>
- www.net-security.org
- <http://www.bbk.ac.uk/linkinglondon/resources/>
- www.youtube.com/user/itsvicters
- en.wikipedia.org/wiki/IT@School_Project
- victers.itschool.gov.in/

EDU-0 9.13 : CURRICULUM AND RESOURCES IN DIGITAL ERA- HOME SCIENCE EDUCATION

(Theoretical discourses - 60 hrs, CE - 30 hrs)

Objectives:

- To strengthen the experience of the promising student teachers as curriculum designers, transmitters and assessors
- To attain proficiency in IT enabled instructional resources for preparing teaching learning materials in Home Science.
- To generate a broad perspectives of e-resources in instructional practices and to develop skill in retrieving and transacting Home Science curriculum through e-resources
- To undertake a self empowerment initiative in transacting the Home Science Curriculum from a digital migrant outlook
- To provide the required research based science learning experiences so as to undertake a habit of self development through inquiry and investigation

Contents:

Unit 1: Curriculum Designing in Home Science Education

Unit 2: School and Community Based Teaching and Learning of Home Science

Unit 3: E-Resources in Teaching and Learning of Home Science

Unit 4: Research Trends in Home Science Education

Unit 1: Curriculum Designing in Home Science Education (20+4=24 hours)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To acquaint with the concepts of curriculum and syllabus 2. To understand and apply the principles of curriculum construction 3. To familiarize with the curriculum organization 4. To familiarize with the recent trends in curriculum construction in state, national and international level	<ul style="list-style-type: none"> • Curriculum and syllabus-Meaning, Definition, Nature • Principles of curriculum construction. • Types of curriculum-subject centred, activity centred, core curriculum, hidden curriculum • Approaches to curriculum organisation- Concentric approach, Spiral approach, Topical approach, General science and disciplinary approach • Critical analysis of Higher Secondary /Vocational Higher Secondary school curriculum in Home Science prescribed by 	Meaningful verbal expression Buzz session PBL Co-operative learning Seminar	<ul style="list-style-type: none"> • Questioning • Role performance analysis in Buzz discussion • Concept mapping • Open book analysis

<p>5. To understand correlation of Home Science within the subject as well as with other subjects.</p>	<p>SCERT.</p> <ul style="list-style-type: none"> • Trends in curriculum construction-SCERT and curriculum, Critical Pedagogy, Issue based curriculum, Problem Based Learning- Main features. • Correlation- Incidental and systematic, Correlation within the subject, Correlation of Home Science with other subjects such as Biology, Physiology, History, Chemistry, Economics, Commerce, Management studies, and Environmental Education. 	<p>Group discussion</p> <p>Web Streaming</p> <p>Blog reading</p>	
--	---	--	--

References

- Higher secondary Home Science text book (Plus 1 & Plus 2) prescribed by SCERT, KERALA
- Teacher's source book of Clothing and embroidery text book (Vocational Higher Secondary-Fist & Second year). SCERT, KERALA
- Bunnie Othanel Smith (1950): Fundamentals of Curriculum Development: California, World Book Company.
- Rao, Bhaskara (2005) Curriculum for Learning to Live Together. New Delhi: Discovery Publishing House.
- Singh and Gopal (2004) Teaching Strategies. New Delhi: APH Publishing Corporation.
- Nibedita,D.(2004). Teaching of Home Science. Dominant publishers and Distributors
- <http://www.ncert.nic.in/html/pdf/schoolcurriculum/framework>
- [http://www.ssamis.com/web/downloads/KCF 2007.pdf](http://www.ssamis.com/web/downloads/KCF%202007.pdf)
- <http://www.case.edu/artsci/engl/emmons/writing/pedagogy>

Unit 2: School and Community Based Teaching and Learning of Home Science (22+10=32 hours)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
<p>1. To acquaint with the concept and significance of community based resources</p> <p>2. To familiarize various formal and informal learning contexts</p>	<ul style="list-style-type: none"> • Community based resources- Meaning , need and significance • Human Resources- resource persons/ eminent persons and teachers from different fields of Home Science 	<p>Narrative expression sessions in small or medium groups</p>	<ul style="list-style-type: none"> • Performance analysis in various participatory activities. • Quiz programme • presentation • Blog posting

<p>3. To identify the contributions of human resources in local community</p> <p>4. To identify the material supports in learning Home Science</p>	<ul style="list-style-type: none"> • Man made resources- Home science Library-importance and organisation, web resources, Home Science laboratory- Importance and organisation, Registers • Community Resources/ Informal learning contexts- Food Processing Units, Social welfare department, ICDS- Balwadi/Anganwadi, Creche and preschool, Institution for special education, Rehabilitation centres, Textile units, Small scale industries and cottage industries. • Material supports- Text book reader, work book, handbook, source book, Reference materials- Encyclopaedia, Newsletters, Journals, Learning module • Field trips and excursions- Need and importance • Home Science fairs and exhibition- Significance, organisation and evaluation • Home Science club-Significance, organisation and activities 	<p>Assignment</p> <p>Project</p> <p>Seminar</p> <p>Field trip</p> <p>Organization of Home science Expo</p> <p>Community resource mobilization / Contextual analysis</p>	<ul style="list-style-type: none"> • Field trip
--	---	---	--

References

- Yadav,S.(1994) *Teaching of Home Science*, New Delhi:Anmol Publications
- Begum, F.(2004) *Modern Teaching of Home Science*. New Delhi:Anmol Publications
- Nibedita,D.(2004). *Teaching of Home Science*. Dominant publishers and Distributors
- Singh and Gopal (2004) *Teaching Strategies*. New Delhi: APH Publishing Corporation.

Unit 3: E-Resources in Teaching and Learning of Home Science (15+7=22 hours)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
<ol style="list-style-type: none"> To generate a broad perspectives of e-resources in instructional practices To develop skill in retrieving and transacting Home Science curriculum through e-resources 	<ul style="list-style-type: none"> Concept of e- resources, Web resources, social networking, Educational blogs, e-journals, pod casting, e-learning, m- learning, and web based learning. Learning management system (LMS) in teaching learning of Home Science education. IT enabled instructional resources: On line resources, videos, YouTube resources, animations, film clippings. 	<p>Web Streaming</p> <p>Explicit teaching</p> <p>On line learning</p>	<ul style="list-style-type: none"> Documentation Assessment of individual performance Use of e-resources in preparing learning materials

References

- <http://www.bbk.ac.uk/linkinglondon/resources/>
- http://en.wikipedia.org/wiki/Learn_management_system<https://www.itschool.gov.in>
- www.youtube.com/user/itsvicters
- en.wikipedia.org/wiki/IT@School_Project
- victers.itschool.gov.in/
- www.youtube.com/user/itsvicters

Unit 4: Research Trends in Home Science Education (8+4=12 hours)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
<ol style="list-style-type: none"> To develop a positive attitude towards research To develop inquiry skills and scientific investigation To understand the wide scope of employability of Home science learning 	<ul style="list-style-type: none"> An introduction to Research in Home Science Education- Need and importance Home Science Teacher as a researcher Analysis of Research outcomes in Home Science education both teaching and learning. 	<p>Group discussion on current researches in Home science education</p> <p>Action research</p>	<ul style="list-style-type: none"> Performance assessment On line assignment

		Seminar	
--	--	---------	--

Reference

- Bunnie Othanel Smith (1950): *Fundamentals of Curriculum Development*: California, World Book Company.
- Dimitris Psillos & Hans Niedderer (2002): *Teaching and Learning in the Science Laboratory*: Netherlands, Kluwer Academic Publishers.
- Funda Ornek, Issa M. Saleh (Eds.) (2012): *Contemporary Science Teaching Approaches: Promoting Conceptual Understanding in Science*: USA, Information Age Publishing Group.
- Jeffrey Michael Reyes, Duncan Andrade, Ernest Morrell (2008): *The Art of Critical Pedagogy: Possibilities for Moving from Theory to Practice*: New York, Peterlang Publishing Inc.
- John Wallace, William Loudon (2002): *Dilemmas of Science Teaching* [electronic resource]: perspectives on problems of practice: New York, Routledge.
- NCSECA (1995): *National Science Education Standards USA*, National Academic Press.
- Radha Mohan (2007): *Innovative Science Teaching*: New Delhi, Prentice Hall of India Pvt Ltd
- Yadav, S. (1994) *Teaching of Home Science*, New Delhi: Anmol Publications
- Begum, F. (2004) *Modern Teaching of Home Science*. New Delhi: Anmol Publications
- Nibedita, D. (2004). *Teaching of Home Science. Dominant publishers and Distributors*
- Singh and Gopal (2004) *Teaching Strategies*. New Delhi: APH Publishing Corporation.
- Harms N. & Yager R. (1981): *What Research Says to the Science Teacher* (Vol. 3): USA, National Science Teachers Association.

EDU- 10.13 : TECHNO-PEDAGOGIC CONTENT KNOWLEDGE ANALYSIS – HOME SCIENCE

(Theoretical discourses - 60 hrs, CE - 30 hrs)

Objectives:

- To undertake a self-empowerment initiative in transacting the Home Science curriculum from a Techno-Pedagogical Content Knowledge perspective
- To get acquainted with different aspects of collaborative use of information and communication technology
- To gain a perspective of basic theories and guiding plans for effective transaction of Home Science
- To understand the nature and importance of Home Science from a global perspective

Contents:

Unit 1: Techno-Pedagogic Content Knowledge and Self Instructional Strategies

Unit 2: Networking in Home Science Learning

Unit 3: Models of Teaching in Home Science

Unit 4: Global Trends in Home Science Education

Unit 1: Techno-Pedagogic Content Knowledge and Self Instructional Strategies (11 +6 =17 hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To conceptualize the basic principles of Techno-Pedagogic Content Knowledge Analysis in Home Science Teaching and Learning 2. To identify the role of science teacher as a techno-pedagogue 3. To understand various Self Instructional Strategies	<ul style="list-style-type: none"> • Techno-Pedagogic Content Knowledge Paradigm-Interrelationship of Content Knowledge, Pedagogic Knowledge and Technological Knowledge, scope and purpose • TPCKA based content analysis- Higher Secondary /Vocational Higher Secondary Home Science text book • Science teacher as a techno-pedagogue. • Techno-pedagogic competencies, • Self Instructional Strategies- Meaning, Types- Programmed Instruction ,Modular Instruction, Personalized System of Instruction, CAI and CMI 	Small group discussion Web searching demonstration Power Point Presentations Seminar On line learning	<ul style="list-style-type: none"> • Participant observation • Development of video script • On-task behaviour in class • Reflective journal • (Technological skill practice in classrooms)

References

- AACTECommittee(2008):HandbookofTechnologicalPedagogicalContentKnowledge(TPCK)forEducators:Washington,DC,Rutledge/Taylor&Francis
- MangalS.K.&UmaMangal(2009):Essentialsof EducationalTechnology:NewDelhi,PHILearningPvtLtd.
- http://en.wikipedia.org/wiki/Technological_Pedagogical_Content

Unit 2: Networking in Home Science Learning (15+11 = 26 hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To grow to be competitive in designing digital texts and e-content in Home science Education 2. To become empower in surfing digital resource for transacting Home Science curriculum.	<ul style="list-style-type: none"> • Professional and Institutional growth: Through network-twinning • Student and Institution Networking • Online learning: Concept and system of online learning, virtual learning. • Creation of blogs. • Applications of Social Networking systems 	Discussion Online learning Demonstration Workshop Group investigation	<ul style="list-style-type: none"> • Digital document analysis • Blog posting • Debate • Online test • ICT based lesson designing and uploading in blog (1)

References

- <http://teachinghistory.org/issues-and-research/roundtable>
- www.5learn.co/e-content-development
- www.aptaracorp.com/digital-content-production/econtent-development
- www.ntu.edu.sg/home/sfoo/publications/2002/02ecdl_fmt.pdf
- www.net-security.org

Unit 3: Models of Teaching in Home Science (18 +10 =28 hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To understand the application of major psychological theories in learning. 2. To understand various models of teaching and their practice.	<ul style="list-style-type: none"> Psychological theories for learning science- A brief introduction of Piaget, Bruner, Gagne, Vygotsky and Ausubel, Gardener's Multiple Intelligence Theory Models of teaching – Introduction, definition, elements and families of models of teaching Concept attainment model Inquiry training model Constructivist learning model Advance organizer model Group investigation model 	Meaningful verbal expression Group discussion Peer tutoring Observation Brain storming Video analysis	<ul style="list-style-type: none"> Analysis in group discussion Class test Discussion lessons (5, Three lessons out of five based on models of teaching) Demonstration lessons (2) Criticism lessons (5, Three lessons out of five based on models of teaching) - Performance, observation and recording

References

- Bhattacharya S.P.(1994):ModelsofTeaching:NewDelhi,RegencyPublications.
- Bruce R.Joyce,MarshaWeilandEmilyCalhoun(2011):ModelsofTeaching(7thEd.):USA,PearsonEducation

Unit 4: Global Trends in Home Science Education (12 +8 = 20hrs)

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. To understand Global trends in relation to House Science Education	<ul style="list-style-type: none"> Home Science education in the global scenario Home Science towards community Science-women entrepreneurships, Gender equality, extension and communication management system of selected developed and developing countries (USA,China, Japan) with special reference to 	Web streaming Documentation Invited lectures	<ul style="list-style-type: none"> Document analysis Blog posting Involvement in subject association activity Video script: Development, enacting, recording and uploading)

	<ul style="list-style-type: none"> Brief history, approaches, organizational structure, linkage to research extension methods used and its comparative analysis with Indian system. 		<ul style="list-style-type: none"> Script writing for radio talk on a topic in home Science
--	--	--	--

References

- <http://jit.sagepub.com/tips/cross.dt>
- www.sagepub.com/journalsindex.nav
- www.librarything.com/tag/clothing-cached
- Cernea MM, Russel JFA & Coulter J.K (Eds). 1983. Agricultural Extension by Training and visit-The Asian experience. The world bank D.C
- Dantwala M.L & Barmeda J.N 1990. Rural Development Approaches and Issues, Indian Ag.Dev. since independence. Oxford & IBH
- Gupta C.B.& Srinivasan NP.2000. Entrepreneurship Development in India. Sultan, Chand & sons
- AACTECommittee(2008):HandbookofTechnologicalPedagogicalContentKnowledge(TPCK)forEducators:Washington,DC,Rutledge/Taylor&Francis
- BhattacharyaS.P.(1994):ModelsofTeaching:NewDelhi,RegencyPublications.
- BruceR.Joyce,MarshaWeilandEmilyCalhoun(2011):ModelsofTeaching(7thEd.):USA,PearsonEducation
- FrankRennie&TaraMorrison(2013):E-LearningandSocialNetworkingHandbook(Second Edition):NewYork,Routledge.
- FrankRennie,TaraMorrison(2013):e-LearningandSocialNetworkingHandbook:ResourcesforHigherEducation:NewYork,Taylor&Francis.
- JanieGrossStein,RichardStein(Ed.)(2001):NetworkofKnowledge:CollaborativeInnovationinInternationalLearning:Toronto,Canada,UniversityofToronto PressIncorporated
- MangalS.K.&UmaMangal(2009):Essentialsof EducationalTechnology:NewDelhi,PHILearningPvtLtd.

EDU – 201.2 : Health and Physical education

(2 credits – 60 hours & 50 marks)

Objectives :

- To acquire knowledge about the Track and Field events.
- To become familiar with major and minor games and to develop interest in sports and games
- To understand the ability to organize and conduct sports and games
- To understand the importance and values of recreational activities in the modern society
- To understanding of the psychological, sociological, and physiological significance of play & recreation.

Contents

Unit – 1 Track & Field or Athletic events – general awareness, rules and regulations, organization.

Unit – 2 Major and minor games – types, rules and regulations

Unit – 3 Tournaments – knock out and league, fixtures for tournaments

Unit - 4 Play & Recreation – need and importance, leisure time management, practice.

Unit – 5 Mental Health – meaning, problems and techniques.

Unit – 1: Track & Field or Athletic events – general awareness, rules and regulations, organization.

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. Acquire knowledge about the track and Field events	Track and field or Athletic events.- 12 hours <ul style="list-style-type: none">• General awareness on athletics• Rules and regulations of any one event in detail	Oral presentation Group activity Participation	<ul style="list-style-type: none">• Group assessment• Organizing sports meet• Participation

Unit – 2: Major and minor games – types, rules and regulations

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. Become familiar with major and minor games and to develop interest in sports and games	Major and Minor games – 10 hours <ul style="list-style-type: none"> Understanding major and minor games rules and regulations of any one major game in detail 	Theoretical orientation Virtual learning platforms	<ul style="list-style-type: none"> Group assessment Intramural competitions

Unit – 3: Tournaments – knock out and league, fixtures for tournaments

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. Understand the ability to organize and participate in the conduct of sports and games	Tournaments – 8 hours <ul style="list-style-type: none"> Knock out, league and combination tournaments Method of drawing fixtures under knock out and league tournaments 	Meaningful verbal expression Group activity sessions in small and medium group	<ul style="list-style-type: none"> Group assessment Assignments
2. To familiarize the ways and measures to draw a standard athletic track.	Track and field marking – 8 hours <ul style="list-style-type: none"> standard 400 mts/200 mts Track marking Field marking 	Verbal presentation Group activity Field work	<ul style="list-style-type: none"> Field analysis through group performance.

Unit – 4: Play & Recreation – need and importance, leisure time management, practice.

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. Understand the importance and values of recreational activities in the modern society 2. Understanding of the psychological, sociological, and physiological significance of play & recreation 3. Practice recreational games	Play & Recreation – 12 hours <ul style="list-style-type: none"> • Need & Importance of Play & Recreation • Play theories • Values associated with practice of play & Recreation • Leisure time Management • Recreational Games • Practice of Recreational activities 	Theoretical orientation Demonstration Group activity	<ul style="list-style-type: none"> • Group assessment

Unit – 5: Mental Health – meaning, problems and techniques.

Learning Outcome	Major concepts	Strategies & Approaches	Assessment
1. Understanding the importance of mental health and normal mental health problems to be addressed in general population 2. Get acquainted with the relaxation techniques to overcome mental health problems	Mental Health – 10 hours <ul style="list-style-type: none"> • Introduction and overview of mental health • Mental health problems • Techniques to improve mental health 	Narrative expressions Demonstration Practical sessions	

Guidelines for Practical work

- Physical Education Record - 10 marks
- Winning prizes in sports and games - 5 marks
- Participation in sports and Games - 10 marks
- Initiative and Effort in organizing sports and games - 5 marks
- Internal written examination - 10 marks
- Practice of Yoga - 10 marks

EDU – 201.3: ART EDUCATION AND THEATRE PRACTICE

(Credit – 1, carries 25 marks/30 hours)

Contents:

Theatre practice in curriculum transaction-

- Workshop to develop simple drama/ skit -Discussion about script writing on selected topic in the optional subject-theatre practice.
- Puppetry –types - use in classroom transaction – demonstration/video presentation.
- Role plays/ Mono act for transaction of different subjects-discussion and presentation.

Practicals:

- Prepare report on the importance of theatre practice in Education with selected examples. (maximum 15 pages) – 10 marks.
- Writing of script for a small drama/ skit by selecting a topic in your subject (individual/group) - 15 marks.