

SCHEME OF STUDY
DEPARTMENT OF EDUCATION; ST. XAVIER'S COLLEGE, RANCHI

SEMESTER –WISE COURSE DISTRIBUTION

SEMESTER- I { Full Marks – 475}

Subjects	Marks	Credit	Teaching. Hrs.	I. A. Wt.	Ex. A. Wt.
Paper-I Education For National Devt. & Social Change	100	4+1	64+32	30	70
Paper-II Learner & Learning	100	4+1	64+32	30	70
EPC-I Language Across Curriculum	50	2+1	32+32	30	70
EPC-II Understanding Discipline & Subjects	50	2+1	32+32	30	70
EPC-III Health and Physical Education	50	2+1	32+32	30	70
Practicum	125	5			

SEMESTER- II {Full Marks – 525}

Subjects	Marks	Credit	Teaching Hrs.	I. A. Wt.	Ex. A. Wt.
Paper-III Classroom Organisation & School Management	100	4+1	64+32	30	70
Paper-IV Assessment and Evaluation	100	4+1	64+32	30	70
Paper – V(A) Pedagogy of Subjects Part I (Method I)	50	2+2	32+64	30	70
Paper – V (A) Pedagogy of Subjects Part I (Method II)	50	2+2	32+64	30	70
EPC-IV ICT (Part I)	50	2+1	32+32	30	70
Practicum	175	7			

SEMESTER- III {Full Marks – 575}

Subjects	Marks	Credit	Teaching Hrs.	I. A. Wt.	Ex. A. Wt.
Paper-VI Teaching: Approaches & Strategies	100	4+1	64+32	30	70
Paper V (B) Pedagogy of Subjects Part II (Method I)	50	2+2	32+64	30	70
Paper V (B) Pedagogy of Subjects Part II (Method II)	50	2+2	32+64	30	70
School Internship	250	13	416	30	70
Practicum	125	5			

SEMESTER- IV {Full Marks - 425}

Subjects	Marks	Credit	Teaching Hrs.	I. A. Wt.	Ex. A. Wt.
Paper-VII Knowledge and Curriculum	100	4+1	64+32	30	70
Paper-VIII Creating and Inclusive Society	100	4+1	64+32	30	70
EPC-IV (ICT-Part II)	50	2+1	32+32	30	70
EPC-V Art & Aesthetic	50	2+2	32+64	30	70
Practicum	125	5			

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SEMESTER- I { Full Marks – 475}

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EPC-II Understanding Discipline & Subjects	50	2+1	32+32	30	70
EPC-III Health and Physical Education	50	2+1	32+32	30	70
Engagement with the field credit					
Paper-I			Credit 1 = 25 Marks		
Paper – II			Credit 1 = 25 Marks		
EPC – I			Credit 1 = 25 Marks		
EPC – II			Credit 1 = 25 Marks		
EPC - III			Credit 1 = 25 Marks		

SEMESTER- II {Full Marks – 525}

Subjects	Marks	Credit	Teaching Hrs.	I. A. Wt.	Ex. A. Wt.
Paper-III Classroom Organisation & School Management	100	4+1	64+32	30	70
Paper-IV Assessment and Evaluation	100	4+1	64+32	30	70
Paper – V(A) Pedagogy of Subjects Part I (Method I)	50	2+2	32+64	30	70
Paper – V(A) Pedagogy of Subjects Part I (Method II)	50	2+2	32+64	30	70
EPC-IV ICT (Part I)	50	2+1	32+32	30	70
Engagement with the field credit					
Paper-III			Credit 1 = 25 Marks		
Paper – IV			Credit 1 = 25 Marks		
Paper – V (Part A- Method I and II)			Credit 2+2 = 50+50 Marks		
EPC – IV (ICT)			Credit 1 = 25 Marks		

SEMESTER- III {Full Marks – 575}

Subjects	Marks	Credit	Teaching Hrs.	I. A. W	Ex.A.Wt.
Paper-VI Teaching:Approaches & Strategies	100	4+1	64+32	30	70
Paper V (B) Pedagogy of Subjects Part II (Method I)	50	2+2	32+64	30	70
Paper V (B) Pedagogy of Subjects Part II (Method II)	50	2+2	32+64	30	70
School Internship	250	13	416	30	70
Engagement with the field credit					
Paper - VI			Credit 1 = 25 Marks		
Paper – V (B) Method - I			Credit 2 = 50 Marks		
Paper – V (B) Method - II			Credit 2 = 50 Marks		

SEMESTER- IV {Full Marks - 425}

Subjects	Marks	Credit	Teaching Hrs.	I. A. W	Ex. A. Wt.
Paper-VII Knowledge and Curriculum	100	4+1	64+32	30	70
Paper-VIII Creating and Inclusive Society	100	4+1	64+32	30	70
EPC-IV (ICT-Part II)	50	2+1	32+32	30	70
EPC-V Art & Aesthetic	50	2+2	32+64	30	70
Engagement with the field credit					
Paper - VII			Credit 1 = 25 Marks		
Paper - VIII			Credit 1 = 25 Marks		
EPC-IV (ICT)			Credit 1 = 25 Marks		
EPC - V			Credit 2 = 50 Marks		

- *Passing marks in Theory Paper is 33% and in Practical 40%.*

{SEMESTER –I}**PAPER-I**

YEAR	I	EDUCATION FOR NATIONAL DEVELOPMENT AND SOCIAL CHANGE	CREDIT	4+1
Semester	I		HOURS	64+32
OBJECTIVES:		<ol style="list-style-type: none"> 1. To understand the concept and aims of Education. 2. To develop understanding about the social realities of Indian society and its impact on education 3. To learn the concepts of social Change and social transformation in relation to education 4. To know the different values enshrined in the constitution of India and its impact on education 5. To identify the contemporary issues in education and its educational implications 6. To understand the historical developments in policy framework related to education 		
COURSE CONTENT / SYLLABUS				
UNIT-I	Concept and Aims of Education			10 hrs.
	<ul style="list-style-type: none"> ✓ Meaning of Education – Broader and Narrow ✓ Formal, non-formal and informal education ✓ Various Agencies of Education ✓ Aims of Education in contemporary Indian society ✓ Determinants of Aims of Education 			
UNIT-II	Social Realities of Indian Society and Education			10 hrs.
	<ul style="list-style-type: none"> ✓ Rich Cultural Heritage - Diversity in Indian Society ✓ Inequality and Marginalization ✓ Schisms in terms of Caste, Religion, Language, Region and their demands on Education ✓ Social Stratification <ul style="list-style-type: none"> ▪ Conceptualizing Social Stratification ▪ Forms and Bases of Social Stratification ▪ Impact of Social Stratification on Education and Vice versa 			
UNIT-III	Education, Social Change and Social Transformation			6 hrs.
	<ul style="list-style-type: none"> ✓ The concepts of social change ✓ Factors of social change ✓ Role of education in the process of social change ✓ Limitations of Education in the process of Social Change 			
UNIT-IV	Thinkers and their Contribution to Education			15 hrs.
	Indian <ul style="list-style-type: none"> ✓ Swami Vivekananda ✓ Rabindranath Tagore ✓ Mahatma Gandhi ✓ Shree Aurobindo Western <ul style="list-style-type: none"> ✓ Pestalozzi ✓ Roussau 			

	✓ Dewey	
UNIT-V	Issues in Indian Education	8 hrs.
	<ul style="list-style-type: none"> ✓ Value Education ✓ Environmental Education ✓ Challenges of Education in Jharkhand ✓ Vocationalization and Privatization 	
UNIT-VI	Policy Framework for Public Education in India	15 hrs.
	<ul style="list-style-type: none"> ✓ Education in Pre-Independent India – significant recommendations of commissions and committees ✓ Education in Post-Independent India – Significant recommendations of Commissions and Committees ✓ National Policy on Education – 1986, 1992 ✓ Universalization of Elementary Education – Sarva Shiksha Abhiyan ✓ RTE ACT 2009, RMSA 	
MODE OF TRANSACTION		
Lectures, discussions, assignments, films on educational thinkers		
SUGGESTED ACTIVITIES		
	<ol style="list-style-type: none"> 1. Assess the impact of Right to Education Act on schools 2. Critical Analysis of different Committees and Commissions on Education 3. Observation of Educational Process in Private Schools 4. Planning and Implementation of Activities – <ul style="list-style-type: none"> • Eco-Club, • Instructional material to inculcate values, • Field visit to vocational institutes to make reports, • Development of awareness development about population explosion in rural / slum areas, • Creating awareness among SC/ST students about various schemes and scholarships available to them, • Survey of schools to see the implementation of various incentives of government to equalize educational opportunities • Preparing a presentation on rich cultural heritage of India 	32 hrs.
REFERENCES		
<p>Bhatia, K. & Bhatia, B. (1983). <i>The philosophical and Sociological foundation of Education</i>. New Delhi: Doaba House.</p> <p>Bhattacharya, S. (2006). <i>Sociological Foundation Of Education</i>: Atlantic Publishers. New Delhi</p> <p>Dhankar, N. (2010). <i>Education In Emerging Indian Society</i>. New Delhi: APH Publishing Corporation.</p> <p>Dhiman, O. P. (1973). <i>Principles and Techniques of Education</i>. Ludhiana: Sharda Brothers.</p> <p>Fagerling, I., and Saha, L. J.O. (1989). <i>Education and National Development (2nd Ed.)</i>. England: Pergamon Press.</p> <p>Kakkar, S. B. (1995). <i>Changing Perspectives in Education</i>. New Delhi: Vikas Publishing House Pvt. Ltd.</p> <p>Mehta D. D. (2009). <i>Education in Emerging Indian Education, Indian Education</i>. Ludhiyana: Tondan Publications, Books Market.</p> <p>Mehta, D. D. (2009). <i>Education in Emerging Indian Education, Indian Education</i>. Ludhiyana:Tondan Publications, Books Market.</p> <p>Murthy, S. K. (2009). <i>Philosophical and Sociological Foundation of Education</i>. Ludhiyana: Tondan Publication, Books Market.</p>		

Murthy, S. K. (2009). *Philosophical and Sociological Foundation of Education*. Ludhiyana: Tondan Publication, Books Market.

Narulla, S. & Naik, J. P. (1964). *Student History of Education in India*. Mc Millian & Co., of India Pvt. Ltd.

National Policy and Education. (1986). *MHRD*. New Delhi: Govt. of India.

Pathak, K. R. (2007). *Education in the Emerging India*. New Delhi: Atlantic Publishers.

Pathak, R. P. (2009). *Philosophical and Sociological Foundations of Education*. New Delhi: Kanishka Publishers.

Rao, D. B. (1996). *Globals Perception on Peace Education, Vol. I, II & III*. New Delhi: Discovery Publishing House.

Rassekh, S., and Vaideanu, G. (1987). *The contents of education*. UNESCO, Paris: Richard Clay Ltd., Bungay, Suffolk, England.

Schultz, T. W. (1972). *Investment in Education*. London: The University of Chicago Press Ltd.

Siddiqui, M. H. (2009). *Philosophical and Sociological foundation of Education*. New Delhi: APH Publishing Corporation, APM Publication Corporation.

Siddiqui, M. H. (2009). *Philosophical and Sociological foundation of Education*. APH Publishing Corporation, APM Publication Corporation, New Delhi

Singh Y. K. (2007). *Philosophical Foundation of Education*. New Delhi: APH Publication Corporation.

Singh, Y. K. (2005). *Education in Emerging Indian Society*. New Delhi: APH Publishing.

Thakur, A. S., and Berwal, S. (2007). *Education in Emerging Indian Society*. New Delhi: National Publishing House.

Toffler, A. (1971). *Future Shock*. London: Hazell Watron and Viney Ltd.

PAPER -II

YEAR	I	LEARNER AND LEARNING	Credit	4+1
Semester	I		Hours	64+32
OBJECTIVES:	<ol style="list-style-type: none"> 1. To appreciate the role of educational psychology in teaching and learning. 2. To understand the salient features and problems of growth and development during childhood to adolescence. 3. To understand the process of learning and factors influencing learning. 4. To understand the dynamics of personality development. 6. To understand the learning process in order to organize teaching for effective learning. 7. To acquaint the teacher trainees with educational needs of special groups of pupils. 8. To understand the concept of personality, mental health and role of the school in protecting mental health of pupils. 9. To develop the ability to apply the knowledge provided by Educational Psychology to classroom problems of various kinds. 			
COURSE CONTENT / SYLLABUS				

UNIT-I	Understanding the Learner in Socio-Cultural Perspective	10 hrs.
	<ul style="list-style-type: none"> ✓ Meaning, nature and scope of Educational Psychology. ✓ Importance of Educational Psychology to the teacher ✓ Factors influencing the learner: Psycho-social, cultural and technological factors. 	
UNIT-II	Growth and Development	10 hrs.
	<ul style="list-style-type: none"> ✓ Meaning and difference between growth and development ✓ Importance of principles of growth and development ✓ Factors affecting growth and development ✓ Dimensions of individual development in different stages (special emphasis on concerns of adolescence) 	
UNIT-III	Knowing the learner	15 hrs.
	<ul style="list-style-type: none"> ✓ Individual difference-meaning, characteristics and its dimensions ✓ Understanding learners for multiple intelligence with special reference to Gardener's theory of multiple intelligence and its implications ✓ Understanding differently abled learners: slow learners, dyslexic, gifted, and disadvantaged 	
UNIT-IV	Theoretical perspectives on learning	20 hrs.
	<ul style="list-style-type: none"> ✓ Meaning and definitions of learning- Learning as a process and product ✓ Different viewpoints of learning and their classroom implications <ul style="list-style-type: none"> (a) Learning by Trial and Error (Thorndike) (b) Learning by Stimulus - Response conditioning (Pavlov & Skinner) (c) Gestalt theory- Learning by insight (d) Cognitive theory (Piaget) and Social cognitive theory (Vygotsky) ✓ Factors affecting learning and learning problems ✓ Transfer of learning 	
UNIT-V	Organizing Learning- Issues and Concerns	9 hrs
	<ul style="list-style-type: none"> ✓ Organizing learning in a class room: teacher centric, subject centric, learner centric and activity centric ✓ Group learning- homogenous and heterogeneous groups- issues and concerns ✓ Study habits and learning to learn skills 	
	SUGGESTED ACTIVITIES:	32 hrs.
	<ol style="list-style-type: none"> 1. Observe the various age group children (Early childhood, Later childhood, Adolescent) in various situations like in the classroom, playground, at home, with parents, friends, siblings and list down the characteristics of them in physical, social, emotional and intellectual domain. 2. List down different maladjusted behaviours of adolescents which you could identify from the classroom and out-side classroom. Take interview 	

	<p>of a few and try to understand the factors that may be responsible for their behaviour.</p> <ol style="list-style-type: none"> 3. Visit a school (Practice Teaching) and find out the different measures/activities taken by school or teachers for healthy mental health of the children by interviewing school teachers. 4. Development of Question box activities (can be carried out by student trainees during practice teaching). <ol style="list-style-type: none"> (i) To provide authentic information on physical, physiological and psychological changes and development during adolescence and interpersonal relationship issues pertaining to adolescents. (ii) To list down the instances of peer pressure which may have harmful consequences for the students and the ways adopted by them to face or cope with these unfavourable situations. (Smoking, injecting drug etc.) 5. Find out the plug-in points from your school subjects and link it with the components of Adolescence Education. Also plan out supplementary co-curricular activities for the same. 6. Observe some successful individuals and list down the behavioural characteristics which impress you. 7. Take interview of five low achievers and five high achievers and find out their ways of learning. 8. List down few (classroom) learning situations involving insightful learning. 9. Administration of Psychological tests. 	
	<p>MODE OF TRANSACTION</p> <p>Lecture, Discussion, Case Study, Experiments, Problem solving, Film Show</p>	
<p>REFERENCES</p> <p>Bhatia, H. R. (1973). Elements of Educational Psychology, 5th edition, Orient Longman.</p> <p>Bigge, M. L. (1982). Learning Theories for Teachers, (4th edition). New York, Harper and Row Publishers, P.P. 89-90.</p> <p>Bolles, R. C. (1975): Learning Theory. New York, Holt, Rinehart and Winston, P.P. 18-19.</p> <p>Chauhan, S.S. (1978): Advanced Educational Psychology, Vikas Publishing house Pvt. Ltd., New Delhi.</p> <p>Dandapani, S. (2001), A textbook of Advanced Educational Psychology. New Delhi: Anmol Publications.</p> <p>Dunn, R. (1983). Can students identify their own Learning Styles? Educational Leadership,40, P.P. 60-62.</p> <p>Dash, M. (1988). Educational Psychology. Delhi: Deep and Deep Publication.</p> <p>Duric, L. (1975). Performance of Pupils in the Process of Instruction. Bratislava, SPN, P.P. 54-90.</p> <p>Duric, L. (1990). Educational Sciences: Essentials of Educational Psychology. International</p>		

Bureau of Education, UNESCO, New Delhi, Sterling Publishers, P. 81.
 Fontana, D. (1995). Psychology for Teachers (3rd edition). The British Psychological Society, London: McMillan in association with BPS Books.
 Kundu C.L. and Tutoo D.N. (1993) : Educational Psychology, Sterling Publishers Pvt. Ltd.
 Lindgren, H. C. (1967). Educational Psychology in Classroom (3rd edition). New York: John Wiley and sons.
 Mangal, S. K. (1984). Psychological Foundations of Education. Ludhiana: Prakash Publishers
 Mohan J. and Vasudeva P. N. (1993). Learning Theories and Teaching, In Mohan Jitendra (ed.) Educational Psychology, New Delhi, Wiley Eastern Limited, P. 146.
 Oza, D. J. and Ronak, R. P. (2011). Management of behavioral problems of children with mental retardation. Germany: VDM publication.
 Papalia D. E., and Sally, W. O. (1978). Human Development. McGraw Hill Publishing Company
 Singh, A.K (2011). Shiksha Manovigyan Patna: Bharti Bhawan Publishers
 Skinner, C.E (2004) Educational Psychology. Delhi: Prentice hall
 Pathak, P.D. (2014) Educational Psychology revised. Agra: Agrawal Publications

EPC- I (ENHANCEMENT OF PROFESSIONAL COMPETENCY)

YEAR	I	LANGUAGE ACROSS CURRICULUM	CREDIT	2+1
Semester	I		HOURS	32+32
OBJECTIVES:		<ul style="list-style-type: none"> ✓ To enable students to understand nature, function and role of language across the curriculum ✓ To acquaint students with obstacles in language usage while using the language and ways to overcome them. ✓ To enable students to understand importance and use of first and second language, multilingualism and impact of culture. ✓ To acquire knowledge about the communication process and verbal and nonverbal communication skills. ✓ To familiarize the students with of barriers to (Listening, Speaking, Reading, Writing)LSRW skills and activities for developing these skills 		
COURSE CONTENT / SYLLABUS				
UNIT-I	Nature and Functions of Language			6 hrs.
	<ul style="list-style-type: none"> ✓ Language – Meaning and Concept ✓ Functions of Language ✓ Role of Language across Curriculum ✓ Barriers in Using a Language & Strategies to Overcome them 			
UNIT-II	Verbal and Nonverbal Communication			6 hrs.
	<ul style="list-style-type: none"> ✓ Communication – Meaning and Concept ✓ Process of Communication ✓ Types of Communication flow in schools ✓ Verbal and Nonverbal Communication ✓ Barriers of communication 			

UNIT-III	Language Proficiency	8 hrs.
	<ul style="list-style-type: none"> ✓ Activities for development of listening skills ✓ Activities for development of reading skills ✓ Activities for development of writing skills ✓ Activities for development of speaking skills 	
UNIT-IV	Communication and Multi Media	4 hrs.
	<ul style="list-style-type: none"> ✓ ICT and its importance ✓ Multi-media as a channel of communication ✓ Use of ICT and multi-media in classroom 	
UNIT-V	Self Instructional Mode of Communication	8 hrs.
	<ul style="list-style-type: none"> ✓ Group strategies ✓ Individual Strategies ✓ Programmed instruction ✓ CAI 	

MODE OF TRANSACTION

Lecture, discussion, exercises, assignments, language games

SUGGESTED ACTIVITIES

1. Use of Language lab.
2. Designing Games and Exercises for developing Listening, Speaking, Writing and Reading Skills
3. Assignments on developing Writing Skills- Summary, Letter, Paragraph, Essays, Speech
4. Assignments on developing speaking Skills – Oral Presentations, Debate, Elocution, Discussion, Brain-storming
5. Assignments on developing listening Skills – Listening to speech, directions
6. Designing multi-media resources for effective communication.

32 hrs.

REFERENCES

Pearson, J. .C. et al. (2011). *Human Communication* . (4th ed.). New York: McGraw Hill Companies Inc.

Floyd, K. (2009). *Interpersonal Communication*. New York: McGraw Hill Companies Inc.

Fromkin, V, Rodman, R &Hym, N. (2011). *Introduction to Language*. (9th ed.). Canada: Cengage Learning.

Akmajian, A. et al. (2010). *Linguistics: Introduction to Language and Communication*. (6thed.). Cambridge: MIT Press.

Fasold, R. &Connor-Linton, J. (2013). *An Introduction to Language and Linguistics*. (6th ed.). Cambridge: Cambridge University Press.

First and Second Language Acquisition- a Brief Comparison.
Retrieved from https://www.uni-due.de/ELE/FLA_SLA_brief_comparison.pdf

Similarities and Differences between First and Second Language Acquisition
Retrieved from
<http://multilingualism.pbworks.com/w/page/21913433/Similarities%20and%20Differences%20between%20First%20and%20Second%20Language%20Acquisition>

Activities for Developing Speaking Skill
Retrieved from
<http://faculty.weber.edu/ppitts/ed4320/Handouts/speakingskills.htm>
<http://www.educ.ualberta.ca/staff/olenka.Bilash/best%20of%20bilash/speaking.html>

Activities for Developing Listening Skill

Retrieved from

<http://www.educ.ualberta.ca/staff/olenka.bilash/best%20of%20bilash/listening.html>

<https://blog.udemy.com/listening-skills-exercises/>

EPC- II (ENHANCEMENT OF PROFESSIONAL COMPETENCY)

YEAR	I	UNDERSTANDING DISCIPLINES AND SUBJECTS	CREDIT	2+1
Semester	I		HOURS	32+32
OBJECTIVES		<ol style="list-style-type: none"> 1. To understand the basis of knowledge and branches of emerging knowledge. 2. To understand the emergence of various disciplines 3. To understand nature of Science as a discipline. 4. To understand nature of Mathematics as a discipline. 5. To understand nature of Language as a discipline. 6. To understand nature of Social science as a discipline. 		
COURSE CONTENT / SYLLABUS				
UNIT-I	Discipline and Subject			6 hrs.
	<ul style="list-style-type: none"> ✓ Nature and Characteristics of a Discipline. ✓ Inter-disciplinary nature of Education ✓ Interrelation and Interdependence amongst various school subjects 			
UNIT-II	Science as a Subject and Discipline			6 hrs.
	<ul style="list-style-type: none"> ✓ Nature and history of science ✓ Scientific method; a critical view ✓ The socio cultural perspective and the ethical consideration ✓ Science as a discipline, place of scientific knowledge in the schema of school curriculum 			
UNIT-III	Language as a Subject and Discipline			6 hrs.
	<ul style="list-style-type: none"> ✓ Centrality of language in education ✓ Language in the school curriculum; aims issues and debates ✓ Policy issues and language at school ✓ Language registers in different subjects ✓ Phases of Language Development 			
UNIT-IV	Mathematics as a Subject and Discipline			7 hrs.
	<ul style="list-style-type: none"> ✓ Nature and History of Mathematics ✓ Place of Mathematics in School Curriculum ✓ Mathematics in day-to-day life ✓ Relationship of Mathematics with other Subjects 			
UNIT-V	Social Science as a Subject and Discipline			7 hrs.
	<ul style="list-style-type: none"> ✓ Nature and Philosophy of Social Science ✓ Social Science as an area of Study ✓ Need of studying Social Science through interdisciplinary perspectives 			

	✓ Place and relevance of Social science in School curriculum	
	MODE OF TRANSACTION	
	Group discussion, Lecture-cum –discussion, pair and share , group work, Panel discussion, Symposium, assignments, Field visits and sharing of experiences	
	SUGGESTED ACTIVITIES	
	<ol style="list-style-type: none"> 1. Policy analysis National curriculum frame works. 2. Identification of core, hidden, null and latent curriculum in textbooks. 3. Review of the books ‘ Diva Swapn’ and ‘To To Chan’ for constructing an activity based curriculum. 4. Analysis of language registers in different subjects. 	32 hrs.
REFERENCES		
<p>Silver, Harold, (1983) ‘Education as history’ British library , Methuen London LA 631.7 S4 E2 Position papers published by NCERT (2006) in respective subjects Sidhu, K. B. (1974). <i>The Teaching of Mathematics</i>. New Delhi: Sterling Pub. (p). Ltd. Sharma, R. C. (2006). <i>Modern Science Teaching</i>. New Delhi: Dhanpat rai publishing comp. Binning A.C. & Binning A.H. : <i>Teaching Social Studies in Secondary Schools</i>, New Yorks, McGraw Hill & Co.</p>		

EPC- III (ENHANCEMENT OF PROFESSIONAL COMPETENCY)

YEAR	I	HEALTH AND PHYSICAL EDUCATION	CREDIT	2+1
Semester	I		HOURS	32+32
OBJECTIVES		<ol style="list-style-type: none"> 1. To understand the concept and principles of Yoga 2. To understand the ancient system of yoga 3. To develop awareness about the historical aspects of Yoga 4. To learn some meditational practices and techniques 5. To learn to maintain a healthy condition of body and mind 6. To learn the utility of Yoga in modern life 		
COURSE CONTENT / SYLLABUS				
UNIT-I	General Health Awareness			6 hrs.
	<ul style="list-style-type: none"> ✓ Introduction to the concept of Health and Health Education: its significance and importance ✓ Determinants of Health ✓ Aims of Health Education ✓ Role of family, school, community and Media in maintain health 			
UNIT-II	Food and Nutrition			6 hrs.
	<ul style="list-style-type: none"> ✓ Concept of balanced diet and its importance ✓ Nutritional deficiencies and related diseases ✓ Life style diseases and remedial measures to improve Physical health 			
UNIT-III	Preventive Measures and First Aid			

	<ul style="list-style-type: none"> ✓ First Aid and its equipment in different cases ✓ Importance of physical exercises and games ✓ HIV-AIDS and its causes, prevention and cure 	6 hrs.
UNIT-IV	Yoga and Health	7 hrs.
	<ul style="list-style-type: none"> ✓ Concept and principles of Yoga ✓ Importance of Yoga in modern life ✓ Yoga sans and their impact on health 	
UNIT-V	Games and Sports	7 hrs.
	<ul style="list-style-type: none"> ✓ Fundamental skills of games and sports ✓ Sports for recreation and competition ✓ Rules and regulations of sports ✓ Sport's awards and scholarships ✓ Sports personship 	
MODE OF TRANSACTION		
Lecture, discussion, workshop, practical work		
	SUGGESTED ACTIVITIES	32 hrs.
	<ol style="list-style-type: none"> 1. Participation in various track events outdoor and indoor games. 2. Organization of games and sports tournaments. 3. Visit to Yoga ashrams and centers. 4. Learning and performing of basic Yogic activities 5. Preparation of first Aids 6. Collection of medicinal plants and preparing a report on their importance 7. March-past and Drill exercises. 	
REFERENCES		
<p>Human Development Report 1994, United Nations Development Programme(U.N.D.P.), New Delhi,Oxford Univeristy press Inc.,1994</p> <p>Vlamdir, H. European Models of teacher Education in developing countries In E.D. Lomax, European perspectives in Teacher Education,London, John Wiley and Inc., 1976 , p 194-195</p> <p>Gharote, M.L., (1976) Physical Fitness in Relation to the practice of selected yogic exercises. Yoga Mimamsa, 18,1, 14-23.</p> <p>Gharote, M.L., Ganguly, S.K., & Moorthy, A.M. (1976) Effect of Yogic training on Minimum Muscular Fitness. Yoga-Mimamsa, 18, 3&4, 1-20.</p> <p>Dhanasekeran, G., (1990). A Study of Primary and Middle School Teachers regarding Health Promotion among School Children. Mphil. Education, Madurai Kamaraj University.</p> <p>Dreze, J., & Goyal, A., (2003) Future of Mid-Day Meals' Economic and Political Weekly, Vol.XXXVIII, No. 44. 4673-4683.</p> <p>Ganguly, S.K. (1989) Immediate Effect of Kapalabhati on Cardio-vascular Endurance, Yoga Mimamsa, 28, 1, 1-7.</p>		

{SEMESTER- II}**PAPER -III**

YEAR	I	CLASSROOM ORGANIZATION & SCHOOL MANAGEMENT	CREDIT	4+1
Semester	II		HOURS	64+32
OBJECTIVES:		1. To understand the importance of classroom management. 2. To describe approaches to classroom management. 3. To understand ways of preventing problems in managing a classroom. 4. To list physical resources and describe how to maintain them. To explain the role of teachers and the principal in ensuring a vibrant school climate.		
COURSE CONTENT / SYLLABUS				
UNIT-I	School as an Organisation			12 hrs.
	<ul style="list-style-type: none"> ✓ Concept of management and administration. ✓ Organisation; Meaning, purpose and characteristics <ul style="list-style-type: none"> ▪ School Management Committee (SMC) ✓ Physical facilities in the school- Building, Classroom, Furniture, Equipment, Laboratory, Staffroom, Restroom, Drinking water, Toilets, Library, Health services, Sanitation. ✓ School accreditation: Meaning, Need and Criteria for school accreditation. ✓ SWOT Analysis 			
UNIT-II	School Management: Managing classrooms			15 hrs.
	<ul style="list-style-type: none"> ✓ Meaning of classroom and its concept ✓ Characteristics of Class room ✓ Composition of classroom ✓ Components of classroom: <ul style="list-style-type: none"> ▪ Teachers (Role of teacher) and ▪ Pupils as recipients and their learning needs ▪ Meaning and concept of classroom management ▪ Objectives of classroom management ▪ Principles of classroom management ▪ Indiscipline in classroom - Concept, Types , Reasons ▪ Techniques of classroom management: Verbal and Non verbal ▪ Contemporary classroom issues : bullying, interpersonal attraction, social media 			
UNIT-III	Educational Structure in India			15 hrs.
	<ul style="list-style-type: none"> ✓ The structure and function at different levels –center, state, district and institutional and university level. ✓ Functions of apex bodies at center and state level like, CAGE, NCERT, NUEPA, UGC, NCTE, KVS, NVS, IGNOU, SCERT, SRC, DIET, CBSE, ICSE, ICCSE. ✓ Decentralization of education with reference to the role and functions of panchayatiraj institutions. 			
UNIT-IV	Leadership and School Management			10

	<ul style="list-style-type: none"> ✓ Management process: Planning, organizing, directing, controlling ✓ Managerial skills, technical skills, conceptual skills, human skills ✓ Concept of Leadership ✓ Educational Leadership : Roles and Responsibilities ✓ Leadership styles ✓ Leadership and decision making ✓ Leadership in the context of innovation and change 	hrs.
UNIT-V	Components of School Management	12 hrs.
	<ul style="list-style-type: none"> ✓ School Time Table : Types, Guidelines for Preparation ✓ School Records: Types and Its Importance ✓ Co-Curricular Activities: Need and Importance, Organisation of Co-curricular activities ✓ Institutional Planning : Meaning, need & importance, steps 	
	MODE OF TRANSACTION Lecture, Lecture cum Demonstration, Discussion, Practical, Assignments	
	<p style="text-align: center;">SUGGESTED ACTIVITIES</p> <ol style="list-style-type: none"> 1. Visit different types of schools following different boards and do a comparative study with respect to various variables. 2. Analyse the process of recognition to different boards. 3. Prepare list of various records prepared by schools and write a report on its importance. 4. Study the various co-curricular activities undertaken by schools. 5. Organise any co-curricular activity in school and prepare a report on its management and problems faced. 6. Prepare a school time table and the points you kept in mind while doing so. 7. Visit schools and prepare a list of various indiscipline problems faced by principal and teachers and the strategies they adopted to solve them 8. Prepare an awareness programme on various indiscipline problems faced in schools. 9. Study the techniques adopted by teacher for classroom management, 10. Visit schools and study the leadership style of principals through observations. 11. Study the innovations and change introduced in school and role of leader therein. 	32 hrs.
REFERENCES		
<p>Desai, D. M. (1964). <i>Outline of Educational Administration in India</i>. Ahmedabad: A. R. Sheth & Co.</p> <p>Desai, D. M. (1964). <i>Shaikshanik Prakashan</i>. Baroda: University Granth Nirman.</p> <p>Getzels, J. W. et.al. (1968). <i>Educational Administration as a Social Process</i>. New York:Harper and Row.</p> <p>Goleman, D. (1998). <i>Working with Emotional Intelligence</i>. NewYork: Bantam Books.</p> <p>Goleman, D. (1995). <i>Emotional Intelligence</i>: NewYork: Bantam Book.</p> <p>Halpin, A.W. <i>Theory and Research in Educational Administration</i>. Collier Mac.</p> <p>Kochar, S. K. (1994). <i>Secondary School Administration</i>. Jullandhar: Jullandhar University</p>		

Publications.

Mukherji, S. N. *Secondary School Administration*. Baroda: Acharya Book Depot.

Naik, J. P. (1969). *Institutional Planning*. New Delhi: Asian Institute of Planning and Administration.

Owenss, R. G. (1970). *Organizational Behaviour in Schools*. New Jersey: Prentice Hall.

Robbin, S., Judge, T., and Vohra, N. (2012). *Organizational Behaviour*. Delhi: Pearson.

Safeya, R., and Shaida, B. D. (1964). *School Administration and Organisation*. Delhi: Dhanpatrai & Sons.

Bhatnagar R.P. and Verma I.B.(1978) Educational supervision, layal book depot, Meerut.

Bhatnagar R.P. and Aggarwal, V. (1986) Educational administration and management, layal Book depot Meerut.

PAPER- IV

YEAR	I	ASSESSMENT AND EVALUATION	CREDIT	4+1
Semester	II		HOURS	64+32
OBJECTIVES:		<ol style="list-style-type: none"> 1. To understand the nature of assessment and evaluation and their role in teaching-learning process. 2. To understand the perspectives of different schools of learning on learning assessment realize the need for school based and authentic assessment. 3. To examine the contextual roles of different forms of assessment in schools. 4. To understand the different dimensions of learning and the related assessment procedures, tools and techniques. 5. To develop assessment tasks and tools to assess learner's performance Analyze, manage, and interpret assessment data. 6. To analyze the reporting procedures of learners' performance in schools. 7. To develop indicators to assess learners performance on different types of tasks. 8. To examine the issues and concerns of assessment and evaluation practices in schools. 9. To understand the policy perspectives on examinations and evaluation and their implementation practices. 10. To tracing the technology bases of assessment practices and other trends at the international level. 		
COURSE CONTENT / SYLLABUS				
UNIT-I	PERSPECTIVES ON ASSESSMENT AND EVALUATION			18 hrs.
	<ul style="list-style-type: none"> ✓ Meaning of Measurement and Evaluation in Education ✓ Characteristics of the evaluation - comprehensive and continuous ✓ Formative and summative evaluation ✓ Norm reference & criterion reference tests ✓ Uses of evaluation ✓ Instructional objectives, purposes of learning outcomes as behavioural changes ✓ Relationship between instructional objectives, learning experiences and evaluation ✓ Writing instructional objectives-different kinds like knowledge, understanding, application, skills, affective attributes, level of 			

	<ul style="list-style-type: none"> performance measurable and non-measurable learning outcomes. ✓ Major techniques of evaluation ✓ Test as an instrument of evaluation ✓ Reporting evaluation results. 	
UNIT-II	Characteristics of Instruments of Evaluation	6 hrs.
	<ul style="list-style-type: none"> ✓ Validity ✓ Reliability ✓ Objectivity ✓ Interdependence of validity, reliability and objectivity 	
UNIT-III	Major Tools of Evaluation and their uses	12 hrs.
	<ul style="list-style-type: none"> ✓ Paper pencil tests, Oral tests, and Performance tests ✓ Achievement tests : standardized and teacher made tests ✓ Diagnostic tests ✓ Intelligence tests and aptitude tests ✓ Rating scale ✓ Check list ✓ Anecdotal records ✓ Socio-metric technique ✓ Interview, Questionnaire and Inventory 	
UNIT-IV	Teacher made Achievement Tests	12 hrs.
	<ul style="list-style-type: none"> ✓ Essay and Objective type tests ✓ Improving essay type questions ✓ Different types of objective tests, their characteristics, advantages and disadvantages. ✓ Relating test items and specific behavioural objectives ✓ Preparation of blue print ✓ Characteristics of a good test 	
UNIT-V	Elementary Statistical in Educational Evaluation	16 hrs.
	<ul style="list-style-type: none"> ✓ Raw scores ✓ Frequency distribution ✓ Graphical representations of grouped data ✓ Measures of central tendency ✓ Measures of variability ✓ Fundamental idea of Standard Scores 	
	MODE OF TRANSACTION	
	Lecture, Team Teaching, Practical Work, Group Discussion, Presentation by Students, Unit Test	
	SUGGESTED ACTIVITIES	
	<ol style="list-style-type: none"> 1. Writing instructional objectives 2. Framing measurable and non-measurable learning outcomes 3. Finding out the content validity of the given question paper 4. Designing Rating scale, Observation schedule, Check list in a given a topic 5. Developing evaluation technique of question paper 6. Framing different types of questions 7. Preparation of Blue Print and a question paper 8. Prepare graphs and use statistics for analysis of test result 	32 hrs.

REFERENCES

- Ebel, R.L. and Fresbie, D.A. (2009). *Essentials of Educational Measurement*. New Delhi: PHI Learning PVT. LTD.
- Garrett, H.E. (2008). *Statistics in Psychology and Education*. Delhi: Surjeet Publication.
- Gupta, S. K. (1994). *Applied Statistics for Education*. Mittal Publications.
- Mehta, S. J., and Shah, I. K. (1982). *Educational Evaluation*. Ahmedabad: Anand Prakashan (Gujarati).
- Rani, P. (2004). *Educational Measurement and Evaluation*. New Delhi: Discovery Publishers.
- Rawat, D. S. (1970). *Measurement, Evaluation and Statistics in Education*. , New Delhi: New Raj Book Depot.
- Reynolds, C.R., Livingston, R.B., and Willson, V. (2011). *Measurement and Assessment in Education*. New Delhi: PHI Learning PVT. LTD.
- Ten Brink, T. D. (1974). *Evaluation - A Practical Guide for Teachers*. New York: McGraw Hill Book Co.
- Thorndike, R.M. (2010). *Measurement and Evaluation in Psychology and Education*. New Delhi: PHI Learning PVT. LTD.
- Yadav, M. S. and Govinda, R. (1977). *Educational Evaluation*, Ahmedabad: Sahitya Mudranalaya.
- Rajput, J. S. (2004). *Encyclopedia of Indian Education*. New Delhi: NCERT.
- Satyanarayan, P.V. (2004). *Curriculum development and management*. New Delhi: DPH.
- Sharma, R. (2002). *Modern methods of Curriculum Organisation*. Jaipur: Book Enclave.
- Sharma, S. R. (1999). *Issues in Curriculum Administration*. New Delhi: Pearl Publishing House.
- Socket, H. (1976). *Designing the Curriculum*. Britain: Pitman Press.
- Srivastava, H. S. (2006). *Curriculum and methods of teaching*. New Delhi: Shipra Publishers.
- Tata, H. (1962). *Curriculum development theory & practice*. New York: Harcourt, Brace & World Inc.
- Yadav, Y.P. (2006). *Fundamentals of Curriculum design*. New Delhi; Shri Sai Printographers

Paper – V (A) (Pedagogy of Subjects Part- I Method I & II)

ENGLISH METHOD

COURSE OBJECTIVES:

- To become aware of the nature and system of Language, Language Acquisition and Language Learning.
- To understand the nature and characteristics of English Language.
- To develop a perspective on English Language education in Indian context.
- To critically examine the English language curricula at school level.
- To understand the dynamic nature of beliefs and assumptions about language learning and methodologies of language teaching.
- To develop the ability of applying various Teaching Strategies for creating effective learning environment.
- To develop the ability of creating different learning resources.
- To understand the nature of comprehensive evaluation in Language.
- To develop the ability of locating 'Hard Spots' and planning Remedial Strategies for Learners.
- To become effective language teachers by continuous learning and exploring the existing theories and practices in language education.

Year	I	TEACHING OF ENGLISH	Credit	3+1
Semester	II		Hours	32+64
Unit -I	Nature and System of Language			6 hrs.
	Nature and characteristics of language (Difference with Dialect and Registers), Language and Socialisation, Language as a system consisting of several subsystems – at sound level, word level and sentence level.(Basic concepts in Phonology, Morphology, Syntax and Semantics).			
Unit-II	Language Acquisition and Language Learning			8 hrs.
	Philosophical, sociological and psychological base of language learning. Behaviouristic, Cognitive, Constructivist and linguistic view of language learning. Piagetian, Vygotskian and Chomskyan principles of language acquisition.			
Unit-III	English Learning in India			5hrs.
	Significance of Learning English at Global context. Historical perspective and socio-cultural role of English in India. Position and role of English in modern India. Teaching English as First Language, Second Language and Library Language. Challenges of teaching English in India.			
Unit-IV	Methods of Language Teaching			8 hrs.
	Analysis of Different Methods with respect to their Strength and Limitations : Grammar cum Translation Method, Direct Method, Bilingual Approach, Dr. West’s Method, Structural Approach, Communicative Approach, Situational Approach, Interdisciplinary Approach			
Unit-V	Effective Teaching and Language Teacher			5 hrs.
	Essentials of good Teaching. Qualities of an Effective Teacher. Understanding Reading, Writing, Speaking and Listening Skill with Special Reference to Classroom Techniques of their Development. Strategies for developing Vocabulary.			
	SUGGESTED ACTIVITIES			64 hrs.
	<ol style="list-style-type: none"> 1. Visiting Language Laboratory, Practicing Stress Patterns and Intonation in English. 2. Project/ Survey on Various Issues Related to Language. 3. Analysing Position Papers on ‘Teaching of English’. 4. Presentations and Discussion on Contemporary Indian, Asian, European and African Literature. 5. Critical Review of a Recently Published Book/Article/Poem. 6. Review of Children Literature/ Popular Folk Tales. 7. Creative Writing in English/ Translation of Articles and Poems from other Language. 8. Practicing different Formats of Writing. 9. Speech, Debates and Elocution and Role Play 10. Preparing Study Material of English with interdisciplinary approach. 			

हिन्दी शिक्षण

उद्देश्य
<ul style="list-style-type: none"> ● भाषा के अलग-अलग भूमिकाओं को जानना ● भाषा सीखने की प्रक्रिया को जानना ● भाषा के स्वरूप और व्यवस्था को समझना ● स्कूल की भाषा, बच्चों की भाषा और समझ के बीच के संबंध को जानना ● भाषा सीखने के तरीके और प्रक्रिया को जानना और समझना ● पाठ्यचर्या, पाठ्यक्रम और पाठ्यपुस्तक का विश्लेषण ● भावों और विचारों की स्वतंत्र अभिव्यक्ति करना ● भाषा के मूल्यांकन की प्रक्रिया को जानना ● भाषा सीखने-सिखाने के सृजनात्मक दृष्टिकोण को समझना

Year	I	हिन्दी शिक्षण	Credit	2+2
Semester	II		Hours	32+64
इकाई १		हिन्दी भाषा का अर्थ एवं स्वरूप <ul style="list-style-type: none"> ✓ भाषा की परीभाषा ✓ भाषा और अस्मिता ✓ विशेषताएँ, प्रकृति तथा महत्व ✓ समाज में हिन्दी भाषा का स्थान 		5 hrs.
इकाई २		हिन्दी भाषा के विविध रूप <ul style="list-style-type: none"> ✓ हिन्दी मातृभाषा के रूप में ✓ हिन्दी प्रथम एवं द्वितीय भाषा के रूप में ✓ घर की भाषा और विद्यालय की भाषा में हिन्दी का महत्व ✓ हिन्दी भाषा माध्यम के रूप में ✓ बहुभाषिक कक्षा 		5hrs.
इकाई ३		संविधान और शिक्षा समितियों के रिपोर्ट में भाषा <ul style="list-style-type: none"> ✓ भाषाओं की स्थिति (धारा ३४३-३५१, ३५०:१) ✓ कोठारी कमीशन (१९६४-१९६६) ✓ राष्ट्रीय शिक्षा नीति - १९८६ ✓ पी. ओ. ए. - १९९२ ✓ राष्ट्रीय पाठ्यचर्या (एन. सी. एफ. -२००५) 		7 hrs.
इकाई ४		भाषायी दक्षताएँ <ul style="list-style-type: none"> ✓ सुनना, बोलना, पढ़ना और लिखना ✓ सुनना और बोलना (सूनने का कौशल सुनने और बोलने के कौशल विकास के स्रोत) भाषा लैब, मल्टीमीडिया तथा मौलिक सामग्री की सहायता तथा निर्माण ✓ पढ़ना-पढ़ने के कौशल ✓ लिखना - लेखन प्रक्रिया, औपचारिक और अनौपचारिक लेखन ✓ भाषायी दक्षता के दो तथा निवाकरण 		8 hrs.
इकाई ५		भाषा शिक्षण की प्रचलित विधियाँ/प्रणालियाँ और उनका विश्लेषण <ul style="list-style-type: none"> ✓ व्याकरण अनुवाद प्रणाली, प्रत्यक्ष प्रणाली ढाँचामत प्रणाली, प्राकृतिक प्रणाली, उद्देश्यपरक संप्रेषणात्मक प्रणाली 		7 hrs.

	हिन्दी शिक्षण की विधियाँ ✓ योजना शिक्षण विधि, बेसिक शिक्षा, खेल विधि ✓ हिन्दी शिक्षण विधि की प्रभावशीलता का मूल्यांकन	
	गतिविधि 1. भारतीय भाषाओं के लिए निर्मित पोजीशन पेपर का अध्ययन और उस पर चर्चा 2. विज्ञान, समाज विज्ञान और गणित की कक्षा छः से सात की किताबों के कुछ अंश चुनकर विश्लेषण <ul style="list-style-type: none"> • बच्चे के स्तर के अनुरूप • क्या यह भाषा सीखने में सहायक है 3. अपने आस-पास के पाँच स्कूलों का दौरा कर यह जानकारी प्राप्त करते हुए एक रिपोर्ट तैयार करें कि द्विभाषा सूत्र की क्या स्थिति है 4. सुनने और बोलने में असमर्थ बच्चों को ध्यान में रखते हुए हिन्दी शिक्षण की दो गतिविधियाँ तैयार करें	64 hrs.

BIOLOGICAL SCIENCE METHOD

Course Objectives:
The course will enable student-teachers
<ul style="list-style-type: none"> • Gain an understanding of the nature and scope and objectives of Biological Science. • Appreciate Biological Science as a dynamic body of knowledge understand about the pedagogy in Biological Science. • Develop effective plans for learning Biological Sciences. • Trace the changing trends in learning of Biological Science. • Explore the resources specific for the learning of children with special needs. • Facilitate development of scientific attitudes in learners. • Understand that evaluation of students can be done in a formal and informal way.

Year	I	TEACHING OF BIOLOGICAL SCIENCE	Credit	2+2
Semester	II		Hours	32+64
Unit -I	Biological Science as a dynamic body of knowledge			6 hrs.
	<ul style="list-style-type: none"> • Meaning and concept of life science • Nature of knowledge in Biological Science • Importance of life science in society • Relationship of life science with other subjects 			
Unit-II	The changing emphasis in learning Biological Science			5 hrs.
	<ul style="list-style-type: none"> • General aims and objectives of Biology Science • Aims of life science teaching at different stages of school education • Specification for the objectives of teaching life science • Formulation of Instructional objectives in life science: Taxonomy of educational objectives as given by Bloom's 			
Unit-III	Biological Science curriculum			8 hrs.

	<ul style="list-style-type: none"> Strategies and principles of curriculum construction of secondary school Place of Biology Science in secondary school curriculum Problems connected with Biology teaching 	
Unit-IV	Pedagogy in Biological Science	8 hrs.
	<ul style="list-style-type: none"> Strategies of teaching Biological science: Lecture method, Lecture-cum demonstration method, Discovery method, Project method, Laboratory method Inductive & Deductive method of problem solving method 	
Unit-V	Professional Development of Biological Science Teachers	5 hrs.
	<ul style="list-style-type: none"> Professional competencies of Biology teacher Professional ethics of Biology teacher 	
	SUGGESTED ACTIVITIES	64 hrs.
	<ol style="list-style-type: none"> Survey of Biological Laboratory in a school. Visit to wild life sanctuary/Zoo/Bio reserves/Botanical garden etc. Projects on studies of plant and animal species in different eco-systems like ponds, grassland, forests and gardens. Written assignment. Providing opportunities for group discussion. Preparation of posters and charts to point out vitamin deficiency diseases, first aid, good posture habits, safety measures to prevent the accident at home and school, good health habits etc. Preparation of bulletin boards with pictures, maps and posters related to conservation. Preparation of charts, figures, models sharing various nutrition deficiency diseases in human beings. 	

PHYSICAL SCIENCE METHOD

OBJECTIVES:
<ul style="list-style-type: none"> To gain insight into the meaning, nature, scope and objectives of science education. To appreciate the science, as a dynamic body of knowledge. To have knowledge of aims and objectives of teaching Physical Science at secondary level. To teach Physical Science by using various strategies and methods. To identify and relate everyday experiences with learning science. To use various evaluation techniques. To prepare tools of evaluation in Physical science. To use various learning resources effectively. To conduct experiments in the laboratory.

Year	I	TEACHING OF PHYSICAL SCIENCE	Credit	2+2
Semester	II		Hours	32+64
Unit -I	Nature of Science			6 hrs.
	Science as domain of enquiry, as a dynamic expanding body of			

	knowledge, role of science in bringing advancements, impact of science on society (in removing superstitions, ignorance and poverty, environmental concerns and ensuring gender equity), place of science in school curriculum.	
Unit-II	Popularization and propagation of science Modes of popularization and propagation of science, science fair, science club, field trips, magazine, journal, museum, quiz etc. Low cost life related experiences, role of science teacher in developing interest of students in science subject, developing rational thinking and scientific attitude	5 hrs.
Unit-III	Methods and strategies of teaching learning physical science Use of various strategies and methods in teaching learning of Physical science, - Lecture cum demonstration method, Project method, Assignment method (in small groups), Problem solving method, Enquiry method, Self learning strategies- Computer assisted instruction, group self learning strategies. Debate, Discussion.	8 hrs.
Unit-IV	Learning Resources Identification of learning resources from immediate environment, utility of various learning resources, improvised learning resources, presentations in the classroom, use of ICT in teaching learning of Physical Science	5 hrs.
Unit-V	Teaching Learning of Physical Science Identification and organisation of concepts for teaching learning of science/physics and chemistry (motion, work and energy, matter, carbon and its compounds, energy, periodic properties of elements, atomic structure, dual nature of matter, radiation etc.) designing teaching learning experiences, ICT applications in learning science/physics and chemistry.	8 hrs.
	SUGGESTED ACTIVITIES	64 hrs.
	<ol style="list-style-type: none"> 1. Preparation of list of competencies required for an effective physical science teacher (discussion) 2. Preparation of learning resources (charts, models)improvised apparatus 3. Preparing assignment sheets based on the topics 4. Performing simple experiments in the laboratory related to the content <ol style="list-style-type: none"> (i) Verify laws of reflection (ii) To measure the diameter of cylinder using vernier callipers (iii)Using screw gauge to measure diameter of cylinder (iv)Preparation of crystals from impure sample of CuSo4 (v) To determine the density of solid (denser than water) by using a spring balance and measuring cylinders (vi)To prepare a true solution, a suspension and colloidal solution (vii) To separate the components of a mixture of sand, common salt and ammonium chloride (or campher) by sublimation (viii) To carry out simple chemical reactions 	

MATHEMATICS METHOD

YEAR	I	TEACHING OF MATHEMATICS	CREDIT	2+2
Semester	II		HOURS	32+64
<p>Essence of the Course: Mathematics is the useful subject to one and all. It has its utilitarian value , practical value and disciplinary value. It contributes a lot to development of human civilization. This course will develop methods and skills of teaching Mathematics and students will understand its importance along with contribution to the field of knowledge.</p>				
OBJECTIVES		<p>Student teacher will be able to:</p> <ol style="list-style-type: none"> 1. Understand nature of Mathematics as a discipline. 2. Understand general objectives of teaching Mathematics. 3. Formulate instructional objectives in terms of behavioural outcomes. 4. Analyze the content in terms of concepts, sub-concepts and relation between them. 5. Select and organise learning experiences according to content and level of students. 		
COURSE CONTENT / SYLLABUS				
UNIT-I	Nature of Mathematics			6 hrs.
	<ul style="list-style-type: none"> • The discipline of Mathematics - Its concept, nature and structure. • Place of Mathematics in School Curriculum. • Values of Mathematics [Long term objectives] : Cultural value, Disciplinary value and Utilitarian value • Correlation of Mathematics with other subjects • Contribution of the Indian Mathematicians 			
UNIT-II	Objectives of Teaching Mathematics			6 hrs.
	<ul style="list-style-type: none"> • Objectives of teaching Mathematics at Secondary/Higher Secondary Level: [As recommended by various reports] • General Objectives of teaching Mathematics [Knowledge, Understanding, Application, Skills, Interest, Aptitude, Appreciation] • Instructional objectives of teaching Mathematics [Knowledge, Understanding, Application, Skills, Interest, Aptitude, Appreciation] • Axiomatic Framework of mathematics • Axioms, Postulates, Undefined terms, Defined terms • Proofs- types of proofs 			
UNIT-III	Planning of Instruction in Teaching of Mathematics			8 hrs.
	<ul style="list-style-type: none"> • Content categories in Mathematics: [Facts, Concepts, Illustrations, Generalisations etc.] • Content Analysis in Mathematics • Problem solving, concept and its formation • Designing of learning experiences in Mathematics • Lesson plan and Unit plan with their specific steps 			
UNIT-IV	Various Methods/Approaches for Teaching of Mathematics			6 hrs.

	<ul style="list-style-type: none"> • Inductive-deductive • Analysis Synthesis • Problem solving <p>{ With specific illustrations for their use in teaching of Mathematics }</p>	
UNIT-V	Evaluation in Mathematics	6 hrs.
	<ul style="list-style-type: none"> • Various types of questions useful in evaluation • Concept of Diagnosis in Mathematics • Concept of Remediation in Mathematics • Preparation of Achievement test • Preparation of Diagnostic test • Blue print • Preparation of question paper 	
MODE OF TRANSACTION		
Lecture, lecture cum Discussion, project work, Demonstration of A. V. Aid, Action Research, Visit, Group work and its Presentation		
SUGGESTED ACTIVITIES		
The following practical work be carried out by the student teachers :		
<ul style="list-style-type: none"> • Write an essay on nature of Mathematics and contribution of Indian Mathematicians. • Preparation of various teaching aids. • Preparation of programmed learning material for selected Units in Mathematics. • Evaluation of Mathematics text book. • Construction of various types of test items. • Construction of achievement and diagnostic tests. • Identify the slow learners, low achievers and high achievers in Mathematics from the classroom during practice teaching. (Case study) • Conducting of Action Research for selected problems. • Development and tryout of Teaching-learning strategy for teaching of particular Mathematical concepts. • Use of Computer in Teaching of Mathematics. • Use of Mathematics activities for recreation. • Development and use of Mathematics laboratory. • Prepare mathematical activities in the context of socio-cultural aspects. 		
REFERENCES		
<p><i>(English)</i></p> <p>Anice, J. (2008). <i>Methods of Teaching Mathematics</i>. New Delhi: Neelkamal Publications.</p> <p>Butler, C. H., Wren F. L. and Banks, J. H. (1971). <i>The teaching of Secondary Mathematics</i>. New York : McGraw Hill.</p> <p>Coney, T. J., Davis, G. J., and Hen Derson, K. B. (1975). <i>Dynamics of Teaching Secondary School Mathematics</i>. Boston: Houghton - Mifflin co.</p> <p>Ediger, M., and Rao, B. (2000). <i>Teaching Mathematics successfully</i>. New Delhi: Discovery Publishing House.</p> <p>Kidd, P. K., Myers, S. S., Cilley David, M. (1970). <i>The Laboratory Approach to Mathematics</i>.</p>		

Chicago: Science Research Associates Inc.

Kinney, L. B., and Purdy, C. R. (1965). *Teaching of Mathematics in Secondary School*. New York; Holt, Rinehart and Winston.

Koehler, M. J. & Mishra, P. (2008). Introducing technological pedagogical content knowledge. In AACTE Committee on Innovation and Technology (Eds)., *Handbook of technological pedagogical content knowledge (TPACK) for educators* . New York: Routledge.

Kolb, J. R., and Bassler, O. C. (1979). *Learning to teach secondary School Mathematics*. London: In text Educational Pub.

Kothari, R. G., and Mistry, H. S. (2012). *Diagnosis of Learning Difficulties on Fractions and Decimals: A study on the students of upper primary schools*. Germany: Lambert Academic Publishers.

Kothari, R. G., and Shelat, P. H. (2011). *Mathematical weaknesses among secondary school students*. Germany: VDM Verlag Publishers.

Kumar, S. (1993). *Teaching of Mathematics*. New Delhi: Anmol Pub. Pvt.

Mottershead, L. (1978). *Sources of Mathematical discovery*. Oxford : Basil black Wall.

Nickson, M. (2006). *Teaching and Learning Mathematics : A Guide to Recent Research and its Application*. London: Continuum

Packiam, S. (1983). *Teaching of Modern Mathematics: A New Approach*. New Delhi: Doaba House.

Pandya, B. (2007). *Teaching of Mathematics*. Agra : Radha Prakashan Mandir.

Paul, C. (2008). *Teaching Mathematics : Developing as a Reflective Secondary Teacher*. New Delhi: Sage Publication.

Rao, N. M. (2007). *A Manual of Mathematics Laboratory*. New Delhi: Neelkamal Publications.

Reeve, W. D. (1954). *Mathematics for the Secondary School*. New York: Holt, Rinehart and Winston, Inc.

Servais, W., and Varga, T. (Ed.) (1971). *Teaching School Mathematics. A UNESCO Source Book*. UNESCO, Penguin books.

Shah G. B. (1964). *New Dimensions in teaching of Mathematics*. Baroda : CASE.

Sidhu, K. B. (1974). *The Teaching of Mathematics*. New Delhi: Sterling Pub. (p). Ltd. (LB 1646 14 54)

Singh, H., Avtar, R., and Singh, V. P. (2008). *A Handbook for Designing Mathematics*

(Hindi)

Ravat, M. S., and Agrawal, M. (1986). *Ganit Shikshan*. Agra: Vinod Pustak Amandir.

(Gujarati)

Joshi, H. O. (1997). *Ganit Shashtra Adhyapan Padhdhati*. Amadavad: BAOU.

Joshi, P. M., Sejpai, D. K., Parikh, K. O., and Patel, N. B. (1988). *Ganit Na Adhyapan Nu Parishilan*. Amdavad: B.S. Shah Prakashan.

Kothari, R. G., Doctor, I. H., and Patel, V.G. (1996). *Ganit Adhyapan Padhdhati* Amdavad : Anand Book Depot.

Mahant, G. V., Trivedi, M. D., Patel, J. A., and Dave (1981). *Ganit Shikshan Padhdhati*. Amadavad: A. R. Sheth & Co.

Patel J. Z., and Jani, P. N. *Hand-Book for Mathematics Teachers*. V. V. Nagar: Manisha Prakashan.

GEOGRAPHY METHOD

OBJECTIVES:

- To develop an understanding of the nature of the knowledge in Geography.
- To develop an understanding in correlation aspect of the subject with other disciplines at

secondary stage.

- To trace the changing trends in learning Geography with respect to its goals and approaches to learning.
- To develop the ability to organize learning experiences according to the nature of learning of the learner.
- To develop ability to analyze principles, designs and materials produced in the curriculum of Geography
- To identify issues and concerns related to the subject in present times.
- To examine the different ways in which learning situations can be created to learn concepts of Geography.
- To formulate different strategies for classroom transaction of knowledge of Geography.
- To explore the use and relevance of different learning resources and materials in learning different units in Geography.
- To understand the need and aims of evaluation of learning outcomes.
- To arrange the Geography laboratory in schools and develop knowledge of facilities and materials available in the laboratory that facilitate learning of Geography.
- To appreciate the importance of knowledge of Geography in day to day dealings in life.
- To inculcate right values and competencies for development in the profession of teaching of Geography.

Year	I	TEACHING OF GEOGRAPHY	Credit	2+2
Semester	II		Hours	32+64
Unit -I	Foundation of Geography Education			6 hrs.
	<ul style="list-style-type: none"> ✓ Meaning, Concept and Importance of Geography in the present context ✓ Nature and Scope of Geography ✓ Geography and its correlation with other school subjects ✓ Geography and development of learner 			
Unit-II	Teaching Learning of Geography			7 hrs.
	<ul style="list-style-type: none"> • Content Analysis ✓ Differentiating between sites (location) and situation (place) ✓ Various resources and their distribution ✓ Patterns of human activities ✓ Environmental degradation and its prevention 			
Unit-III	Strategies and Methods of Teaching Geography			8 hrs.
	<ul style="list-style-type: none"> ✓ Teacher controlled- Lecture, Demonstration, Team teaching ✓ Learner controlled – Individual self learning strategies - PI (Programmed instruction), PSI (Personalised System of Instruction), CAI (Computer-assisted instruction), and Projects. Group self-learning strategies- Discussion, Debate discussion, Seminar, Brainstorming, Simulation through role playing, Group investigation 			
Unit-IV	Teaching Learning Resources in Geography			6 hrs.
	<ul style="list-style-type: none"> ✓ Primary and Secondary sources ✓ Various teaching aids (visual, audio and audio-visuals) 			

	<ul style="list-style-type: none"> ✓ ICT in learning ✓ Geography resources room 	
Unit-V	Development of Skills associated with Teaching-Learning	5 hrs.
	<ul style="list-style-type: none"> ✓ Map reading and analysis ✓ Case study ✓ Development of observation skills ✓ Facilitation in development of oral and writing expressions 	
	SUGGESTED ACTIVITIES	64 hrs.
	<ol style="list-style-type: none"> 1. Visits to a village, locality of a town, an industrial site, a hydel power project or a mining locality and preparation of a report on its geographical personality, development problems and measures for solution. 2. Preparation of a project report on an industry, tourism, mining, crop etc. using secondary data 3. Preparing a report on the status of Environmental pollution in Ranchi 4. Preparation of various types of learning resources 5. Preparing self learning instructional material 	

CIVICS METHOD

Course objectives:
The course will enable student-teachers
<ul style="list-style-type: none"> • To develop and understand of the nature and importance of Civics/Pol.Sc. • To understand of the place/ importance of Civics/Pol.Sc. • To acquire knowledge about aims and general objectives of Civics teaching in secondary school. • To integrate knowledge within components of Civics/Pol.Sc with other school subject. • To trace the changing trends in learning of Civics/Pol.Sc. With respect to its goals and approaches to learning. • To analysis the content in learning of Civics/Political Sc. With respect to its categories, process skill knowledge organization and other critical issues. • To develop ability to teach different content/topics of Civics/Pol.Sc. with various methods and strategies. • To develop ability to use various learning recourses effectively. • To develop ability to understand different political issues. • To identify theme in Civics/Pol.Sc. In which community can be used as a learning resources. • To identify and relate everyday experiences with learning Civics.

Year	I	TEACHING OF CIVICS	Credit	2+2
Semester	II		Hours	32+64
Unit -I	Foundation of Civics Teaching			8 hrs.
	<ul style="list-style-type: none"> ✓ Meaning, nature and scope of Civics/Pol.Sc. ✓ Aims and objectives of Civics/Pol.Sc. teaching ✓ Correlation of Civics with different subjects 			

	✓ Place and importance of Civics as a subject in the school curriculum	
Unit-II	Methods of Civics Teaching	8 hrs.
	<ul style="list-style-type: none"> ✓ Discussion method ✓ Project method ✓ Problem solving method ✓ Unit method ✓ Source method ✓ Lecture-cum- demonstration method 	
Unit-III	Learning resources in Civics	5 hrs.
	<ul style="list-style-type: none"> ✓ Audio-visual aids: Picture, Chart, Map, Time line ✓ Text book ✓ Community resources ✓ News paper and Magazine 	
Unit-IV	Curriculum for Civics	5 hrs.
	<ul style="list-style-type: none"> ✓ Principle of selection and organisation of the material content ✓ Issues and concerns of Civics curriculum addressed by NCF 2005 	
Unit-V	Emerging concepts and trends in the subjects matter of Civics	6 hrs.
	<ul style="list-style-type: none"> ✓ Current affairs and Issues ✓ Study of Political System: <ul style="list-style-type: none"> • Parliamentary system • Multi party, political system • Enlightened electorate • Central election ✓ Study of Political Issues-International understanding, National integration 	
	SUGGESTED ACTIVITIES	64 hrs.
	<ol style="list-style-type: none"> 1. Collection of data and information about one current problem as prescribed in school syllabus 2. Presentations related to current political issues. 3. Preparing Album, scrap book related to contemporary issues 4. To visit neighborhood and conduct a socio-economic survey 5. Mock Session 6. Organizing discussions, debates, quiz on Political and social Issues. 	

HISTORY METHOD

OBJECTIVES:
<ul style="list-style-type: none"> • Develop an understanding of the nature and importance of History. • To understand the importance of History. • Explore the use and relevance of different learning resources and materials in learning different units in History. • Ability to teach different content/topics of History with various method and strategies. • Reflect upon his/her experimental knowledge in the different processes of becoming a History student. • Conduct History related activities through History club, History fair, History science

exhibitions during school attachment.

- Ability to develop time sense.
- Ability to use various learning of History sources effectively.
- Identify themes in History in which community can be used as a learning resources.

Year	I	TEACHING OF HISTORY	Credit	2+2
Semester	II		Hours	32+64
Unit -I	Foundation of History Education			6 hrs.
	<ul style="list-style-type: none"> ✓ Meaning nature and scope of History ✓ Aims and objectives of teaching History ✓ Importance of History ✓ Place of History in secondary school curriculum ✓ Correlation of History with different subjects 			
Unit-II	Methods of teaching History			5 hrs.
	<ul style="list-style-type: none"> ✓ Meaning of teaching method ✓ Difference between method and technique ✓ Types of method: story telling, source method, project method, discussion method, lecture method, text book method 			
Unit-III	Techniques of Teaching History			8 hrs.
	<ul style="list-style-type: none"> ✓ Simulated teaching ✓ Team teaching ✓ Programme Instruction ✓ Seminar technique ✓ Conference technique ✓ CAI meaning uses and its limitations ✓ ICT in History 			
Unit-IV	Teaching learning of History			8 hrs.
	<ul style="list-style-type: none"> ✓ History at different stages ✓ Nationalism in Europe ✓ French revolution, Russian revolution, American revolution ✓ Nasism ✓ Reforms in Indian History ✓ The national movement 			
Unit-V	Learning resources in History			5 hrs.
	<ul style="list-style-type: none"> ✓ Text-book ✓ Audio-visual aids ✓ Difference between Geographical and historical map ✓ Field trip, excursion ✓ Time line, time chart, history classroom 			
	SUGGESTED ACTIVITIES			64 hrs.
	<ol style="list-style-type: none"> 1. Project work using ICT on any History lesson 2. Preparation of teaching aids and organizing exhibition 3. Analysis of History text book and other curriculum materials 4. Visiting History places and writing report 5. Preparing time line and time chart 			

EPC-IV (ICT-Part I)

YEAR	I	ICT	CREDIT	2+1
Semester	II		HOURS	32+32
OBJECTIVES:	<ol style="list-style-type: none"> 1. To acquaint teacher trainees with different parts of Computer System and their functions. 2. To develop competency among teacher trainees to use Online and Off line electronic resources. 3. To acquaint teacher trainees with the facilities available on Internet. 4. To train the teacher trainees in handling MS-Word and MS- Excel. 5. To explore the environment of WINDOW – Operating System. 6. To acquaint teacher trainees with the terminology and Configuration of Computers. 			
COURSE CONTENT / SYLLABUS				
UNIT - I	Introduction to Computer System. History and Evolution of Computer System.			2 HOURS
	Characteristics of Computer System <ul style="list-style-type: none"> • Speed • Storage • Accuracy • Versatile • Automation • Diligence Classification of Computers <ul style="list-style-type: none"> • Mechanical • Electro Mechanical • Electronic • Digital <ul style="list-style-type: none"> ▪ Micro computer ▪ Mini computer ▪ Mainframe computer ▪ Super computer ▪ Personal Digital Assistant Data representation within Computer System <ul style="list-style-type: none"> • Binary Number System • Octal Number System • Hexadecimal Number System • Conversion of data from <ul style="list-style-type: none"> ▪ Decimal to Binary Number System and vice versa ▪ Decimal to Octal Number System and vice versa ▪ Decimal to Hexadecimal Number System and vice versa ▪ Binary to Octal Number System and vice-versa ▪ Binary to Hexadecimal Number System and vice versa Basic Structure and Components of Computer System <ul style="list-style-type: none"> • Hardware 			2 HOURS
				4 HOURS

	<ul style="list-style-type: none"> • Software • Firmware • Liveware 	
UNIT - II	Computer Hardware and Its type	2 HOUR S
	<p>Input Device</p> <ul style="list-style-type: none"> ▪ Keyboard ▪ Mouse ▪ Touch screen ▪ MICR ▪ LIGHT Pen ▪ Joy Stick ▪ Digitizer ▪ Scanner <ul style="list-style-type: none"> • Output device <ul style="list-style-type: none"> ▪ Visual display unit ▪ Printer <ul style="list-style-type: none"> ➤ Laser ➤ Inkjet <ul style="list-style-type: none"> • Storage Device <ul style="list-style-type: none"> ▪ Computer Memory and its type <ul style="list-style-type: none"> ➤ Primary Memory <ul style="list-style-type: none"> • ROM • RAM ➤ Secondary Memory <ul style="list-style-type: none"> • Hard Disk • Tape • Compact Disk • Digital Video Disk • Pen Drive etc. • Processor • How to select a Personal Computer <ul style="list-style-type: none"> ▪ Configuration of Computer System 	2 HOURS 2 HOURS 2 HOURS 1 HOUR 1 HOUR
UNIT - III	<ul style="list-style-type: none"> • Working with Ms. Word 	12 HOURS
	Starting MS-Word: Creating a document, Opening a document, saving a document, editing, formatting text, viewing documents; formatting documents- line spacing, paragraph spacing, setting tab, indenting text, aligning text; adding header and footer; numbering page; inserting a table; proofing a document- spell check, automatic spell check, auto text, auto correct; printing a document; mail	

	merge; simple trouble shooting; use of MS. Word in education. Preparing a resume.	
Suggested Activities	<ul style="list-style-type: none"> • Conversion of data from <ul style="list-style-type: none"> ▪ Decimal to Binary Number System and vice versa ▪ Decimal to Octal Number System and vice versa ▪ Decimal to Hexadecimal Number System and vice versa ▪ Binary to Octal Number System and vice-versa ▪ Binary to Hexadecimal Number System and vice versa • Starting MS-Word • Creating a document • Opening a document • saving a document • Editing, formatting text, viewing documents; • Formatting documents- line spacing, paragraph spacing, setting tab, indenting text, aligning text; • Adding header and footer; numbering page; inserting a table • Proofing a document- spell check, automatic spell check, auto text, auto correct • Mail merge • Preparing a resume. 	2 HOURS
		30 HOURS

REFERENCES:

1. Sinha, P.K.: Computer Fundamentals: Concepts, Systems, and Applications. New Delhi: BPB Publications, 1992.
2. Introduction to Computer Science; 2nd Edition, Pearson.
3. Flynn, Meredith and Rutkosky, Nita: Advanced Microsoft Office 2000. New Delhi: PB Publications, 2000.
4. Hergest, Douglas: Excel 4 for Windows – Instant Reference. Singapore: Tech Publications PTE Ltd., 1992.
5. Hillman, David: Multimedia Technology and Applications. New York: Delmar Publishers, 1998.
6. Matthews, Martin: Windows 95 Power Tools. New York: Random House Electronic Publishing, 1995.
7. Minasi, Mark, Christiansen, Eric, & Shapar, Kristina: Expert Guide to Windows 98. San Francisco: Sybex, 1998.
8. Nagpal, D.P.: Computer Course. New Delhi: Wheeler Publishing, 2001.
9. Oberlin, S.K, Kervran, P. & Cox, J: A Quick Course in Windows 3.1. Delhi: Jaico Publishing House, 1993.
10. Rajaraman, V.: Fundamentals of Computers. New Delhi: Prentice Hall of India Pvt. Ltd., 1997.
11. Rathbone, Andy: Windows for Dummies. Delhi: Pustak Mahal, 1993.
12. Ray, John: Special Edition Using Microsoft TCP / IP. New Delhi: Prentice Hall of India Pvt. Ltd., 1997.
13. Sanders, Donald H.: Computers Today. New York: McGraw Hill Book Co., 1988.

14. Sansanwal, D.N.: Information Technology and Higher Education. UNIVERSITY NEWS, Vol. 38, No. 46, 2000, pp 1-6.
15. Sansanwal, D.N.& Suri, S.: Computers in Psychological Testing. JOURNAL OF EDUCATION AND PSYCHOLOGY, Vol. 53, Nos. 1-2-3, 1996.
16. Underdahl, Brian & Underdahl, Keith: Internet with Web Page / Web Site Design. New Delhi: IDG Books India (P) Ltd., 2000.

{SEMESTER – III}
PAPER- VI

YEAR	II	TEACHING APPROACHES AND STRATEGIES	CREDIT	4+1
Semester	III		HOURS	64+32
OBJECTIVES:		<ol style="list-style-type: none"> 1. To understand of the role of a teacher at different phases of teaching. 2. To write instructional objectives. 3. To understand different skills and their role in effective teaching. 4. To understand various concepts and maxims of teaching. 		
COURSE CONTENT / SYLLABUS				
UNIT-I	Unit I Understanding Teaching			10 hrs.
	<ul style="list-style-type: none"> ✓ Meaning and nature of teaching ✓ Maxims of teaching ✓ Characteristics of good teaching ✓ Factors affecting teaching 			
UNIT- II	Phases of Teaching			18 hrs.
	<ol style="list-style-type: none"> a) Role and functions of teacher in different phases <ul style="list-style-type: none"> ✓ Pre active phase of teaching ✓ Visualizing the learner ✓ Framing instructional objectives ✓ Preparation of plan: unit plan and lesson plan b) Interactive phase of teaching: <ul style="list-style-type: none"> ✓ Different approaches and skills of teaching ✓ Different strategies and models of teaching: Expository, inquiry c) Post active phase of teaching: <ul style="list-style-type: none"> Evaluation and Feedback 			
UNIT- III	Developing instructional skills			10 hrs.
	<ul style="list-style-type: none"> ✓ Concept and nature of Micro teaching ✓ Significance of Simulated teaching ✓ Co operative and Collaborative approaches of teaching : Brain storming, Role play and Dramatization ✓ Group discussion, Simulation and Games, Debate, Quiz, Seminar 			

UNIT- IV	Approaches to Individualized instruction	16 hrs.
	<ul style="list-style-type: none"> ✓ Concept and Principles of Self learning ✓ Organizing Self learning Strategies: Programme Instruction, CAI, PSI, Modular Instruction, Learning Activity Packages, Learning Centers, Mini Courses. 	
UNIT- V	Professional development programme of teacher	10 hrs.
	<ul style="list-style-type: none"> ✓ Participation in Seminar, Conferences, Workshops, On line sharing ✓ Role of reflective practices ✓ Teacher as a researcher ✓ Membership of professional organizations 	
MODE OF TRANSACTION		
Group discussion, Lecture-cum –discussion, pair and share , group work, panel discussion, Symposium, Assignments, School Visits and Sharing of experiences		
	SUGGESTED ACTIVITIES	32 hrs.
	<ol style="list-style-type: none"> 1. Writing instructional objectives 2. Preparing lesson plan 3. Micro teaching classes 4. Appraisal classes 5. Planning classes with collaborative approaches 6. Preparing resources for individualized instructions 7. Planning classes with different teaching models 8. Preparing peer appraisal reports 9. Action research 	
REFERENCES		
<p>Bloom, B S., Englehart M D, Furst E J, Hill W H and Khrathwohl, D R (1956, 1964) Taxonomy of Educational Objective Handbook 1, Cognitive Domain, Handbook 2, Affective Domain, Longman London Buch.</p> <p>M B and Santharam M R (1972) Communication in Classroom, CASE, Faculty of Ed. & Psy. M S Univ. Baroda</p> <p>Davis, Irork (1971) The Management of Learning, Mc Graw Hill, London</p> <p>Jangira N K and Ajit Singh (1982) Core Teaching Skills: The Microteaching Approach, NCERT, New Delhi</p> <p>Nagpure, V. (1992) Teacher Education at Secondary Level, Himalaya Publishing House, 'Ramdoot', Dr Balerao Marg, Girgaon, Bombay 400 004</p> <p>Passi, B K (1976) Becoming better teacher Micro-teaching Approach, Sahitya Mudranalaya, Aahmedabad</p> <p>Sharma, R A (1983) Technology of Teaching; International Publishing House, Meerut Kumar, K L (1996) Educational Technology; New Age International (P) Ltd Publishers, New Delhi</p> <p>Singh, L C Microteaching: Theory and Practical, National Psychological Corporation, Agra</p>		

PAPER – V (B) (PEDAGOGY OF SUBJECTS PART- II METHOD I & II)

ENGLISH METHOD

Year	II	TEACHING OF ENGLISH	Credit	2+2
Semester	III		Hours	32+64
Unit -I	Language in Indian Schools			8 hrs.
	Centrality of Language in Learning, Different School Subjects as Registers, Critical Review of Medium of Instruction, Multicultural Awareness and Language Teaching. Constitutional Provisions and Policies on Language Education : Articles 343-351, 350A, Recommendations of Kothari Commission, NPE 1986, POA 1992, NCF 2005.			
Unit-II	Planning Classroom Teaching			6 hrs.
	Aims and Objectives of Teaching English at Secondary stage, Concept of Lesson Plan, Significance of Lesson Planning. Lesson Plan in Prose, Poetry, Grammar and Comprehension. Designing lessons with different Methods and approaches of language teaching. Concept and Relevance of Unit Plan.			
Unit-III	Utilisation of Learning Resources			6 hrs.
	Meaning, Types, Functions, Preparation and Utilization of Learning Resources. Use of Multi-media materials, Activity Based Strategy, CAI, Flash Cards, Graded Readers, Newspaper Collage, Language Games, Classroom Libraries, Language Laboratories.			
Unit-IV	Assessment of English Learning			6 hrs.
	C.C.E. in English. Characteristics of a good test. Construction of Blue Print. Item Construction, Construction of English Question Paper. Constructing Diagnostic Tests. Presentation of Achievement Records, Writing Reports while locating 'Hard Spots' of language learning (Portfolio Evaluation in English). Planning Remedial Teaching Strategies.			
Unit-V	Curriculum Analysis			6 hrs.
	Rationale, Objectives and Principles of curriculum construction. English Syllabus at National and State levels and their Critical Appraisal. Analysis of Textbooks in different Boards. Significance of Functional English with special reference to communication skills.			
SUGGESTED ACTIVITIES				64 hrs.
<ol style="list-style-type: none"> 1. Writing Instructional Objectives and Lesson Plans. 2. Practicing Skills with Lesson Plans. 3. Teaching of Basic Grammatical concepts (Parts of Speech, Tense, Voice, Narration etc.) 4. Planning Alternative Teaching Strategies. 5. Analysis of Textbooks in English 6. Analysis of Language Registers in Different Subjects. 				

	<p>7. Use of Different Resources in English Classrooms.</p> <p>8. Preparing Language games.</p> <p>9. Preparing Evaluation Reports.</p> <p>10. A Report on the Diagnostic and Remedial Activities.</p>	
<p>References :</p>		
<p>Baruah (1988) The English Teacher's Hand Book, New Delhi, Sterling.</p> <p>Edwin, A, Harper Jr. and Erika S. Harper (1992) Preparing Objective Examination: A Handbook for Teachers, Students and Examiners, Prentice Hall of India Pvt. Ltd. New Delhi.</p> <p>Harris (1979) Testing English as a Second Language, Macmillan.</p> <p>Lado, R. (1963) Language Testing, New York Mc. Graw Hill.</p> <p>NCERT (1988) National Curriculum for Elementary and Secondary Education : A Frame Work (Revised Edn.).</p> <p>Verghese, C.P. (1980) Teaching English as a Second Language, Bombay, Somaiya.</p> <p>Widdowson, M (1988) Teaching Language as communication Oxford O.U.P.</p> <p>Willis (1989) Teaching English through English ELBS</p> <p>Yule, George (1996) The Study of Language, Cambridge University Press, Cambridge.</p> <p>Chomsky, N.1986. Knowledge of Language. New York: Praeger</p> <p>Mohanty, A. K. Bilingualism in a Multilingual Society: Psycho-social and Pedagogical Implication. Mysore: CIIL.</p> <p>NCERT. 2005. National Curriculum Framework-2005, NCERT: New Delhi.</p> <p>NCERT 2000 Continuous and Comprehensive Evaluation. NCERT: New Delhi.</p> <p>NCERT 2005. Examination Reforms: Position Paper of the National Focus Groups. NCERT: New Delhi.</p> <p>Agnihotri, P.K., Khanna, A.L. 1994. (Eds.) Second Language. Acquisition: Socio-cultural and linguistics Aspects of English in India (RAL1), New Delhi: Sage Publications.</p> <p>Brown, J.D. 1996 Testing in Language Programmes. Upper Saddle River, NJ: Prentice Hall Regents.</p>		

हिन्दी शिक्षण

Year	II	हिन्दी शिक्षण	Credit	2+2
Semester	III		Hours	32+64
इकाई १		<p>हिन्दी शिक्षण के उद्देश्य</p> <ul style="list-style-type: none"> ✓ हिन्दी शिक्षण के सामान्य उद्देश्य ✓ हिन्दी शिक्षण के विशिष्ट उद्देश्य ✓ मातृभाषा शिक्षण के उद्देश्य ✓ हिन्दी शिक्षण के उद्देश्य 		4 hrs.
इकाई २		<p>भाषा साहित्य और सौंदर्य</p> <ul style="list-style-type: none"> ✓ स्कूली पाठ्यक्रम में साहित्य को पढ़ाना-पढ़ना ✓ अनुवाद का महत्व और जरूरत ✓ कविता शिक्षण ✓ गद्य शिक्षण ✓ नाटक और कहानी शिक्षण 		7 hrs.

	✓ हिन्दी व्याकरण शिक्षण	
इकाई ३	पाठ्य क्रम और पाठ्य-सामग्री का निर्माण	6 hrs.
	<ul style="list-style-type: none"> ✓ पाठ्यचर्या, पाठ्यक्रम तथा पाठ्यपुस्तकों का संबंध ✓ विद्यार्थी अनुरूप पाठ्यक्रम ✓ पाठ्य पुस्तक का अर्थ तथा स्वरूप ✓ पाठ्य पुस्तक की विशेषताएँ ✓ हिन्दी की पाठ्य पुस्तक का स्वरूप 	
इकाई ४	सहायक शिक्षण सामग्री	5 hrs.
	<ul style="list-style-type: none"> ✓ सहायक सामग्री के प्रकार तथा उपयोगी ✓ पारम्परिक सहायक सामग्री ✓ सहायक नवीन सामग्री (प्रिंट मीडिया तथा अन्य पाठ्य सामग्री) ✓ आई. सी. टी., दृश्य-श्रव्य सामग्री ✓ रेडियो, टेलीविजन फिल्में ✓ सहसंज्ञानात्मक गतिविधियों की रूपरेखा (चर्चा, वादविवाद, खेल, कार्यशालाएँ, गोष्ठी) 	
इकाई ५	मूल्यांकन की भूमिका और महत्व	8 hrs.
	<ul style="list-style-type: none"> ✓ भाषा विकास की प्रगति का आकलन ✓ सतत् और समग्र मूल्यांकन ✓ स्वमूल्यांकन ✓ आपसी मूल्यांकन ✓ समूह मूल्यांकन ✓ पोर्टफोलियो <p>प्रश्नों का स्वरूप: प्रश्नों के आधार बिंदु</p> <ul style="list-style-type: none"> ✓ समस्या समाधान संबंधी प्रश्न ✓ सृजनात्मक चिंतन वाले प्रश्न ✓ कल्पनाशीलता की जीवित करने वाले प्रश्न ✓ गतिविधि और टास्क (खुले प्रश्न-बहुविकल्पी प्रश्न) <p>फीडबैक (विद्यार्थी, अभिभावक और अध्यापक) और रिपोर्ट</p> <ul style="list-style-type: none"> ✓ हिन्दी में गृह-कार्य ✓ निदान एवं उपचारी हिन्दी शिक्षण 	
	गतिविधि	64 hrs.
	<ol style="list-style-type: none"> 1. एक ही विषय पर किन्हीं तीन अखबारों के संपादकीय की भाषा पर बातचीत कर उनकी विषय प्रस्तुति का विश्लेषण करें 2. समूह में बँट कर मीडिया लेखन के तीन अलग-अलग नमूनों फीचर, रिपोर्ट, लेख आदि को इकट्ठा कर उसमें समानता और अंतर पर रिपोर्ट दें 3. भाषा दोष को कम करने वाले दो सहायक शिक्षण सामग्री को तैयार कर उसकी प्रस्तुति। 4. हस्तलिखित समाचार-पत्र का विकास 	

अनुमोदित पुस्तकें

हिन्दी शिक्षण - शिखा चतुर्वेदी

हिन्दी शिक्षण - बी. एल. शर्मा

हिन्दी शिक्षण - मीनाक्षी भटनागर

हिन्दी शिक्षण - गिरीश पचौरी, सीमा रानी

हिन्दी शिक्षण के आधार - सरोज अग्रवाल, सुरक्षा बंसल, बी. के. माहेश्वरी

BIOLOGICAL SCIENCE METHOD

Year	I	TEACHING OF BIOLOGICAL SCIENCE	Credit	2+2
Semester	II		Hours	32+64
Unit -I	Learning Resources in Biological Science			8 hrs.
	<ul style="list-style-type: none"> • Uses of resources for Biological Science teaching- audio-visual aids: charts, models, real object, computer aid learning etc • Characteristics of a good text book • Effective use of text book 			
Unit-II	Life science Activities			6 hrs.
	<ul style="list-style-type: none"> • Development of Aquarium, Vivarium and terrarium. • Planning and organization of • Biological Science fair • Biological science clubs • Excursion • Uses of resources for Biological science teaching:- Museum and Botanical garden 			
Unit-III	Biological science laboratories and related activities			6 hrs.
	<ul style="list-style-type: none"> • Need and importance of Biology laboratory • Planning and organization of biology laboratory • Different types of science laboratory 			
Unit-IV	Evaluation in Biological science			6 hrs.
	<ul style="list-style-type: none"> • Needs and objectives of evaluation • Purposes and functions of evaluation • Practicing continuous and comprehensive evaluation to test regular progress • Framing different types of tests and different types of questions (objectives, essay and short answer type) 			
Unit-V	Planning for learning in Biological sciences			6 hrs.
	<ul style="list-style-type: none"> • Steps and advantages of designing lesson plan for Biology content 			
SUGGESTED ACTIVITIES				64 hrs.
<ol style="list-style-type: none"> 1. Preparation of lesson/unit plan. 2. Practice the skill of collection, fixation and preservation of Biological/plants materials. 3. Preparation of charts/models etc. 4. Group/individual presentation. 5. Observe and draw different microscopic permanent slides. 6. Demonstration and use of bleaching powder in nearby community well. 7. A visit to a nearby pond/factory to observe various sources of pollution in water and air. 8. Preparation of tables and charts to indicate calorific values of vegetarian and non-vegetarian food stuffs. 				

References

- Das, R.C. (1985) Science Teaching in Schools, Sterling Publication
- Innovations in Teacher Education Science Teacher Education Project (STEP), Mac Grow Hills, New York.
- Heiss, E.D., Obourn E.S. and Hoffman, C.W. (1961) Modern Science Teaching : by Macmillan Publication, New York.
- Mangal, S.K. : Teaching of Physical and life Sciences, Arya Book Dept., New Delhi.
- Mason, M and Ruth T. Peters : Teacher Guide for life Sciences,
Published by D. Van Nostran Company, Inc., New York.
- NCERT (1988) National Curriculum for Elementary and Secondary Education :
A Framework (Revised Ed.)
- NCERT (1995) Environmental Education in the School Curriculum, New Delhi.
- NCERT (1996) Science for Classes IX and X, New Delhi.
- NCERT Environment Education : Process for Pre-service Teacher
Training Curriculum Development, UNESCO – UNEP
International series 26 prepared by NCERT, New Delhi.
- NCERT : Procedures for Developing an Environmental Education Curriculum, UNESCO-UNEP
International Environmental Education Programme, Environmental Education series 22, New
Delhi.
- Nair, P.K.G. (1985) Principles of Environmental Biology, UNESCO
Training of Science Teachers and Educators, Bangkok UNESCO
- Sood, J.K. Teaching Life Sciences, Published by Kohli Publication
- Sharma, R.C. : Modern Science Teaching, Dhanpat Rai and Sons, Delhi.
- Sytnik, K.M. : Living in the Environment : A Source Book for Environmental Education, UNESCO
NCERT, Position paper of NFG on Teaching of Science-2005.
- NCERT, Position paper of NFG on Examination Reforms-2005
- NCERT, Position paper of NFG on Aims of Education -2005.
- Sutton, CR and Hayson JH, The Art of the Science Teacher, MC Graw Hill Book company Ltd.
(1974)
- Their, DH, Teaching Elementary School Science: A Laboratory Approach Sterling Publication Pvt.
Ltd. (1973).
- Science Teach (NSTA's per reviewed journal for secondary science teaching).
- Journal of Research in Science Teaching (Wiley-Blackwell).
- Turner Tony and Wendy Di Macro, learning to teach school experience in secondary school
teaching. Routledge, London and New York.
- Taber K.S.: Chemical Misconceptions-Prevention, Diagnosis and cure volume 1 and 2, London
2002 (Royal Society of Chemistry).

PHYSICAL SCIENCE METHOD

Year	II	TEACHING OF PHYSICAL SCIENCE	Credit	2+2
Semester	III		Hours	32+64
Unit -I	Planning for the effective teaching learning			8 hrs.
	Identification of the objectives, Formulating objectives (specific) Presentation of content, Assessment of learning Use of learning resources, Mode of transaction, ensuring			

	learner's participation, Unit planning, selection of strategies of curriculum transaction, preparation of learning resources, PPT preparations.	
Unit-II	Assessment of Learning	6 hrs.
	Meaning and purpose of Evaluation in Physical science scheme of CCE, Evaluation techniques, Formative and summative Assessment, Types of tests - Written test, practical test, online test, activities etc.	
Unit-III	Construction of tools of Assessment	6 hrs.
	Developing questions covering cognitive, cognitive and affective domain, Essentials of a good question paper, Construction of a question paper and developing blue print, Reporting performance of learner	
Unit-IV	Physical Science curriculum for schools in India	6 hrs.
	Curriculum reforms suggested in NCF 2005, Process of curriculum development, Models of curriculum	
Unit-V	Professional development of science teachers	6 hrs.
	Professional development programmes for science teachers, participation in seminars, conferences, field visits, online sharing, Teacher as researcher	
	SUGGESTED ACTIVITIES	64 hrs.
	<ol style="list-style-type: none"> 1. Preparing lesson plans form the content 2. Preparing power point presentations on the topics 3. Planning and conducting experiments in the laboratory 4. Recording and evaluation of practical work 5. Preparing a question paper and developing criteria of assessment 6. Suggesting ways to make science teaching interesting by adopting innovative/alternative ways of teaching 7. Organising activities of science club 8. Preparing Evaluation Reports. 9. Unit Planning 10. Preparing question bank of Physical science 11. Preparing learning resources for classroom teaching 	

Reference

Teaching of science. Prof. J.K. Sood.
Teaching of Science – S.P. Kulshreshtha (2008) R. Lall Book Depot. Meerut.
Modern Mehtods of teaching Physics. Shalini Wadhwer (2001) Sarup & Sons Publication.
Teaching of Physical sciences.- Dr S.K. Mangal Shubhra Mangal (2007) International publishing house.
भौतिक विज्ञान शिक्षण प्रो. जे. एस. नेगी (२०१२- २०१३) अग्रवाल पबलिकेशन
NCERT, National Curriculum Framework -2005.
NCERT, Position Paper of NFG on Teaching of Science-2005.
NCERT, Position Paper of NFG on Habitat and Learning-2005.
NCERT, Position Paper of NFG on Examination Reforms-2005.
NCERT, Position Paper of NFG on Aims of Education-2005
NCERT, Position Paper of NFG on Gender Issues in Education-2005.

NCERT, Position Paper of NFG on Education for Peace- 2005.
 Vaidya, Science Teaching for 21st Century, Deep and Deep Publications (1999).
 Dat Poly, Encyclopedia of Teaching Science, Sarup and Sons, New Delhi (2004).
 Radha Mohan, Innovative Science Teaching for Physical Science Teachers, Prentice Hall of India Pvt. Ltd., New Delhi (2002).
 Sutton, CR and Hayson JH, The Art of the Science Teacher, MC Graw Hill Book Company Ltd. (1974).
 Their, DH, Teaching Elementary School Science: A Laboratory Approach Sterling Publication Pvt. Ltd. (1973).
 Science and Children (NSTA's peer reviewed journal for elementary teachers).
 Science Teach (NSTA's per reviewed journal for secondary science teachers).
 Journal of Research in Science Teaching (Wiley-Blackwell).
 International Journal of Science Education.
 Misconceptions in chemistry, addressing perceptions in Chemical Education, Barke, Hans Dieter, Al Yitbarek, Sileshi, Publication of Springer.
 Turner Tony and Wendy Di Macro, Learning to Teach School Experience in secondary school teaching. Routledge, London and New York.
 Taber K.S.: Chemical Misconceptions-Prevention, Diagnosis and cure volume 1 and 2, London 2002 (Royal Society of Chemistry)
 Web Sites
 1. [http:// www.tc.columbia.edu/mst/science ed/courses. asp](http://www.tc.columbia.edu/mst/science%20ed/courses.asp).
 2. <http://www.edu.uwo.ca>

MATHEMATICS METHOD

YEAR	II	TEACHING OF MATHEMATICS	CREDIT	2+2
Semester	III		HOURS	32+64
Essence of the Course:				
This course is designed to equip the learners to use ICT in various ways in teaching and learning of Mathematics. The learners will be able to construct many forms of tests in Mathematics. They will have understanding of innovations and implications of researches in the field of Mathematic education.				
OBJECTIVES: Students will be able to ...				
<ol style="list-style-type: none"> 1. Design appropriate teaching – learning strategy/approach suited to particular content. 2. Use ICT and various teaching aids in teaching of Mathematics.. 3. Evaluate Mathematics Text Book. 4. Construct achievement test and diagnostic test. 5. Understand innovations and implications of researches in the field of Mathematics Education. 				
COURSE CONTENT / SYLLABUS				
UNIT-I	Various Methods/Approaches for Teaching of Mathematics			8 hrs.
	<ul style="list-style-type: none"> • Laboratory Method • Discovery Method • Project Method 			

	{With specific illustrations for their use in teaching of Mathematics }	
UNIT-II	Use of ICT in teaching of Mathematics	10 Hours
	<ul style="list-style-type: none"> • Concept of ICT • Pedagogical issues • Need of Technological Pedagogical Content Knowledge (TPACK) in Mathematics • Use of various Audio Visual aids in teaching of Mathematics - Charts, models, overhead projector, films with their specific use and limitations • Use of Computer and other ICT equipments 	
UNIT-III	Curriculum and Text book of Mathematics	10 Hours
	<ul style="list-style-type: none"> • Curriculum at upper primary, secondary and Higher secondary level: [A critical review with respect to Principle of Curriculum Design.] • Functions of Mathematics Text Book • Characteristics of a good text book • Evaluation of Mathematics Text book : [Physical aspects, academic aspects] 	
UNIT-IV	Research in Mathematics Education	9 Hours
	<ul style="list-style-type: none"> • Meaning of Research with respect to Mathematics Education • Action Research in Mathematics • Implications of researches in the field of Mathematics education 	
UNIT-V	Innovations in teaching of Mathematics	1 Hours
	<ul style="list-style-type: none"> • Teaching of Mathematics in the context of socio-cultural aspects • Recreation in Mathematics (Mathematics Club & Activities for Mathematical creativity & Vedic Mathematics) • Mathematics Laboratory • Cooperative learning in mathematics • Mastery Learning Strategy 	
MODE OF TRANSACTION		
Lecture, lecture cum Discussion, project work, Demonstration of A. V. Aid, Action Research, Visit, Group work and its Presentation		
SUGGESTED ACTIVITIES		64 hrs.
<p>The following practical work be carried out by the student teachers :</p> <ul style="list-style-type: none"> • Identify the slow learners, low achievers and high achievers in Mathematics from the classroom during practice teaching. (Case study) • Conducting of Action Research for selected problems. • Development and tryout of Teaching-learning strategy for teaching of particular Mathematical concepts. 		

- Use of Computer in Teaching of Mathematics.
- Use of Mathematics activities for recreation.
- Development and use of Mathematics laboratory.
- 13. Prepare mathematical activities in the context of socio-cultural aspects.

REFERENCES

(English)

- Anice, J. (2008). *Methods of Teaching Mathematics*. New Delhi: Neelkamal Publications.
- Butler, C. H., Wren F. L. and Banks, J. H. (1971). *The teaching of Secondary Mathematics*. New York : McGraw Hill.
- Coney, T. J., Davis, G. J., and Hen Derson, K. B. (1975). *Dynamics of Teaching Secondary School Mathematics*. Boston: Houghton - Mifflin co.
- Ediger, M., and Rao, B. (2000). *Teaching Mathematics successfully*. New Delhi: Discovery Publishing House.
- Kidd, P. K., Myers, S. S., Cilley David, M. (1970). *The Laboratory Approach to Mathematics*. Chicago: Science Research Associates Inc.
- Kinney, L. B., and Purdy, C. R. (1965). *Teaching of Mathematics in Secondary School*. New York; Holt, Rinchart and Winston.
- Koehler, M. J. & Mishra, P. (2008). Introducing technological pedagogical content knowledge. In AACTE Committee on Innovation and Technology (Eds)., *Handbook of technological pedagogical content knowledge (TPACK) for educators* . New York: Routledge.
- Kolb, J. R., and Bassler, O. C. (1979). *Learning to teach secondary School Mathematics*. London: In text Educational Pub.
- Kothari, R. G., and Mistry, H. S. (2012). *Diagnosis of Learning Difficulties on Fractions and Decimals: A study on the students of upper primary schools*. Germany: Lambert Academic Publishers.
- Kothari, R. G., and Shelat, P. H. (2011). *Mathematical weaknesses among secondary school students*. Germany: VDM Verlag Publishers.
- Kumar, S. (1993). *Teaching of Mathematics*. New Delhi: Anmol Pub. Pvt.
- Mottershead, L. (1978). *Sources of Mathematical discovery*. Oxford : Basil black Wall.
- Nickson, M. (2006). *Teaching and Learning Mathematics : A Guide to Recent Research and its Application*. London: Continuum
- Packiam, S. (1983). *Teaching of Modern Mathematics: A New Approach*. New Delhi: Doaba House.
- Pandya, B. (2007). *Teaching of Mathematics*. Agra : Radha Prakashan Mandir.
- Paul Chambers (2008). *Teaching Mathematics : Developing as a Reflective Secondary Teacher*. New Delhi: Sage Publication.
- Rao, N. M. (2007). *A Manual of Mathematics Laboratory*. New Delhi: Neelkamal Publications.
- Reeve, W. D. (1954). *Mathematics for the Secondary School*. New York: Holt, Rinehart and Winston, Inc.
- Servais, W., and Varga, T. (Ed.) (1971). *Teaching School Mathematics. A UNESCO Source Book*. UNESCO, Penguin books.
- Shah G. B. (1964). *New Dimensions in teaching of Mathematics*. Baroda : CASE.
- Sidhu, K. B. (1974). *The Teaching of Mathematics*. New Delhi: Sterling Pub. (p). Ltd. (LB 1646 14 54)
- Singh, H., Avtar, R., and Singh, V. P. (2008). *A Handbook for Designing Mathematics*

(Hindi)

- Ravat, M. S., & Agrawal, M. (1986). *Ganit Shikshan*. Agra: Vinod Pustak Amandir.

(Gujarati)

- Joshi, H. O. (1997). *Ganit Shashtra Adhyapan Padhdhati*. Amadavad: BAOU.

Joshi, P. M., Sejpal, D. K., Parikh, K. O., and Patel, N. B. (1988). *Ganit Na Adhyapan Nu Parishilan*. Amdavad: B.S. Shah Prakashan.

Kothari, R. G., Doctor, I. H., and Patel, V.G. (1996). *Ganit Adhyapan Padhdhati* Amdavad : Anand Book Depot.

Mahant, G. V., Trivedi, M. D., Patel, J. A., and Dave (1981). *Ganit Shikshan Padhdhati*. Amadavad: A. R. Sheth & Co.

Patel J. Z., and Jani, P. N. *Hand-Book for Mathematics Teachers*. V. V. Nagar: Manisha Prakashan.

GEOGRAPHY METHOD

Year	II	TEACHING OF GEOGRAPHY	Credit	2+2
Semester	III		Hours	32+64
Unit -I	Planning of Instruction			8 hrs.
	<ul style="list-style-type: none"> ✓ Aims of teaching Geography and writing instructional objectives ✓ Lesson planning, Unit planning ✓ Importance of teaching-learning resources in teaching Geography ✓ Use of teaching-learning resources contextually 			
Unit-II	Assessment of Learning in Geography			7 hrs.
	<p>A. Evaluation: different dimensions</p> <ul style="list-style-type: none"> ✓ Meaning and purpose of evaluation in Geography ✓ Scheme of CCE- Formative and Summative evaluation ✓ Concept, need and importance of diagnostic tests and remedial work in Geography <p>B. Tools of assessment in Geography</p> <ul style="list-style-type: none"> ✓ Essentials of a good question paper ✓ Test construction ✓ Preparing the blue print ✓ Reporting performance of learner 			
Unit-III	Geography Curriculum for School in India			6 hrs.
	<ul style="list-style-type: none"> ✓ Curriculum reforms (NCF, 2005) ✓ Curriculum development process ✓ Models of curriculum 			
Unit-IV	Evaluation of Syllabi and Text			7 hrs.
	<ul style="list-style-type: none"> ✓ Discussion and assessment of any three syllabi of different boards ✓ Discussion and assessment of any three or four text books of different boards 			
Unit-V	Professional Development of Geography Teacher			4 hrs.
	<ul style="list-style-type: none"> ✓ Need for up-gradation of pedagogical skills in teaching Geography ✓ Participation in Seminars, Conferences, Online sharing, Distance learning ✓ Membership of professional organizations ✓ Role of self-appraisal in professional development 			

SUGGESTED ACTIVITIES		64 hrs.
<ol style="list-style-type: none"> 1. Preparing a lesson plan/Unit plan 2. Preparing learning resources contextually 3. Writing instructional objectives for a lesson 4. Constructing an achievement test 5. Preparing blue print for a test 6. Writing report on the evaluation of curriculum of different boards 7. Conducting an activity on environmental conservation in secondary school during practice teaching and preparing a report on it 		
Reference		
<ol style="list-style-type: none"> 1. Position paper by National focus group on teaching of social sciences. 2. Learning without Burden, Report of the National Advisory committee, 1993, Ministry of Human Resource Development, Government of India. 3. Yagnik K.S. the teaching of social studies in India, Orient Longman Ltd. 1966. 4. UNESCO, New Source Book for Teaching of Geography, UNESCO 2005. 5. NCERT text books for class VIII, IX and X in social sciences. 6. National Curriculum Framework 2005, NCERT, New Delhi. 7. Singh R.L (1989)-India- a regional Geography, National Geography society of India, Varanasi. 8. Verma O.P.- Geography Teaching, Sterling Publishers, New Delhi. 9. Singh R.P-Teaching of Geography, Surya publications, Meerut. 10. Singh H.N-Bhugol Sikshan, Agrawal publication, Agra. 		

CIVICS METHOD

Year	II	TEACHING OF CIVICS	Credit	2+2
Semester	III		Hours	32+64
Unit -I	Teaching process in Civics			8 hrs.
	<ul style="list-style-type: none"> ✓ Lesson planning- designing of lesson steps and exposition of lesson planning ✓ Process of writing instructional objectives in a behavioural terms 			
Unit-II	Assessment of Learning of Civics			6 hrs.
	A. Evaluation–different dimensions <ul style="list-style-type: none"> ✓ Meaning and purpose of evaluation in Civics ✓ Scheme of CCE ✓ Formative and summative evaluation ✓ Construction of unit test 			
Unit-III	Content Analysis			6 hrs.
	<ul style="list-style-type: none"> ✓ Constitution design and the need for laws ✓ Parliamentary system ✓ Untouchability Gender Religion and Caste ✓ Democracy: outcomes of democracy ✓ Challenges of federalism ✓ Marginalization Government			

	<ul style="list-style-type: none"> • Union • State • Local ✓ Indian constitution and its main features ✓ Fundamental rights and duties 	
Unit-IV	New Dimensions/Innovation in Civics	6 hrs.
	<ul style="list-style-type: none"> ✓ Micro Teaching, Team Teaching, Simulated Teaching, Programmed Instruction, Multi Media Interactive Approach, ICT 	
Unit-V	Assessing syllabus and textbooks	6 hrs.
	<ul style="list-style-type: none"> ✓ Need of text book in Civics teaching ✓ Characteristics of good text book ✓ Text book of Civics in Indian school ✓ Analysing text book of different boards at secondary stage on the basis of the guideline/criteria suggested by NCF 2005 	
	SUGGESTED ACTIVITIES	64 hrs.
	<ol style="list-style-type: none"> 1. Preparing teaching aids 2. Constructing unit test during practice teaching 3. Using ICT for preparing one topic of Civics at secondary stage 4. Visit to political institution/Govt. Institution and submit an analytical report on the functioning of the elected bodies 5. To meet the elected representatives and submit a report on the basis of discussion/ Interview with them 	

Reference

Bhatnagar, CPR, Bhushan and Khanna : A Preparation and Evaluation of Text Books in Social Studies.

Binning and Bining : Social Studies in Secondary Schools

Edwin, A, Harper Jr. and Erika S Harper (1992) Preparing Objective Examination : A Handbook for Teachers, Students and Examiners. Prentice Hall of India Pvt. Ltd. New Delhi

Martorella, PH : Social Studies Strategies – Theory and Practical

NCERT, Improving Civics Teaching, New Delhi

NCERT (1988) National curriculum for Elementary and Secondary Education : A Framework (Review Edn.)

Social Studies : - A Draft Syllabus for Classes I to X

Yajnik, K.S. : The Teaching of Social Studies in India

Tyagi Guru Sharan Das : Nagrik Shastra Ka Shikshan.

Singh Rampal : Nagrik Shastra Shikshan

National Curriculum Frame Work, 2005, NCERT, New Delhi.

Position paper by National Focus on Teaching of Social Sciences

Report of the Secondary Education Commission, 1953, Ministry of Education, Government of India. New Delhi.

The Curriculum for the Ten Year School- a Frame Work, 1975, NCERT, New Delhi.

Learning without Burden, Report of the National Advisory Committee, 1993, Ministry of Human Resource Development, Government of India.

Delors J., (1996) Learning the Treasure within. Report of International commission on Education for 21st Century-UNESCO.

Mc. Graw Hill Book company, Inc, New York, 1952.
 Bank, James, a (1977) teaching strategies for the social studies. Enquiry, valuing and decision making, Wesley Publishing comp. Massachusetts.
 Dhamija, Neelam (1993) Multimedia Approaches in Teaching Social Studies. Human Publishing House, New Delhi.
 James, Hemming (1953) The teaching of Social studies in secondary school. Longman Green & Company, London.
 Kumar Krishna (2005) Second Edn. Political agends of Education: A study of colonialist nationalist ideas, sage, New Delhi.
 NCERT (1971) Report of the Committee on Examination, CABE, Ministry of Education on Social Welfare, India New Delhi.
 NCERT Textbooks in Social for classes VIII, IX and X.

HISTORY METHOD

Year	II	TEACHING OF HISTORY	Credit	2+2
Semester	III		Hours	32+64
Unit -I	Issues and concerns in History			8 hrs.
	<ul style="list-style-type: none"> ✓ Importance of local History ✓ Teaching of controversial issues ✓ Current events in History ✓ Issues and concerns in History curriculum addresses in NCF 2005 			
Unit-II	History curriculum			6 hrs.
	<ul style="list-style-type: none"> ✓ Meaning of curriculum ✓ Principles of curriculum constructions ✓ Innovation in curriculum ✓ Advantage of curriculum construction ✓ Psychological basis of selection of facts, organization of facts ✓ Content of History syllabus 			
Unit-III	Teaching of Process in History			6 hrs.
	<ul style="list-style-type: none"> ✓ Aims of teaching history and writing instructional objectives ✓ Less on planning ✓ Content-analysis, writing objectives, designing of lesson 			
Unit-IV	Assessment of learning History			6 hrs.
	<ul style="list-style-type: none"> ✓ Meaning and purpose of evaluation ✓ Difference between evaluation and measurement ✓ Types of evaluation ✓ Principal of construction of question papers at different stages ✓ C.C.E. in History 			
Unit-V	History teaching and National and International integration			6 hrs.
	<ul style="list-style-type: none"> ✓ Need of national integration ✓ Meaning of national integration ✓ Role of history for national integration. ✓ Role of history in the development of international understanding 			

SUGGESTED ACTIVITIES		64 hrs.
1. Planning of lesson on History units of class 7 th , 8 th , 9 th , 10 th 2. Preparing question papers 3. Construction of objectives types of tests 4. Assignment on current issues		
References:		
<p>Ghosh, K.D. (1951) : Creative Teaching of History, Bombay, Oxford University Press NCERT (1970) – Teaching History in Secondary Schools, New Delhi Vajreswari, R. (1966) A Handbook of History Teachers Bombay Allied Publishers Tyagi Guru Sharan Das : Ethihis Shikshan Agarwal, J.C. : Teaching of History : A practical approach. Kochar , S.K. : Teaching of Hostory Sharma, R.A. : Itihis Shikshan National Curriculum Frame Work, 2005, NCERT, New Delhi. Position paper by National Focus on Teaching of Social Sciences Report of the Secondary Education Commission, 1953, Ministry of Education, Government of India. New Delhi. The Curriculum for the Ten Year School- a Frame Work, 1975, NCERT, New Delhi. Learning without Burden, Report of the National Advisory Committee, 1993, Ministry of Human Resource Development, Government of India. Delors J., (1996) Learning the Treasure within. Report of International commission on Education for 21st Century-UNESCO. Mc. Graw Hill Book company, Inc, New York, 1952. Bank, James, a (1977) teaching strategies for the social studies. Enquiry, valuing and decision making, Wesly Publishing comp. Massachusetts. Dhamija, Neelam (1993) Multimedia Approaches in Teaching Social Studies. Human Publishing House, New Delhi. James, Hemming (1953) The teaching of Social studies in secondary school. Longman Green & Company, London. Kumar Krishna (2005) Second Edn. Political agends of Education: A study of colonialist nationalist ideas, sage, New Delhi. NCERT (1971) Report of the Committee on Examination, CABE, Ministry of Education on Social Welfare, India New Delhi. NCERT Textbooks in Social for classes VIII, IX and X</p>		

{SEMESTER- IV}

PAPER- VII

YEAR	II	KNOWLEDGE AND CURRICULUM	CREDIT	4+1
Semester	IV		HOURS	64+32
OBJECTIVES:		1. To acquaint the students with the changing paradigms of education. 2. To enable the students to understand models and process of curriculum development 3. To enable the student to understand the strategies of curriculum implementation		

	4. To enable the students to understand the ways of curriculum evaluation 5. To enable the students to examine issues in curriculum development	
COURSE CONTENT / SYLLABUS		
UNIT-I	Epistemological Base of Knowledge	15 hrs.
	<ul style="list-style-type: none"> ✓ Concept of Knowledge ✓ Structures and forms of Knowledge ✓ Difference between information knowledge belief and opinion ✓ Nature of knowledge in different disciplines <ul style="list-style-type: none"> ▪ Inquiry Training Model ▪ Concept Attainment Model ▪ Advance Organizer Model 	
UNIT-II	Educational Implication of Knowledge Base	8 hrs.
	<ul style="list-style-type: none"> ✓ Different approaches of knowledge transaction ✓ Knowledge base in different modes of education face to face/tutorial/large group/oral-aural/ group based / individualized/ distance mode digital mode/virtual mode 	
UNIT-III	Concept of Curriculum	12 hrs.
	<ul style="list-style-type: none"> ✓ Meaning, nature and concept of curriculum ✓ Characteristics of Curriculum of different stages ✓ Components of curriculum ✓ Nature of knowledge in different types of curriculum 	
UNIT-IV	Dynamics of Curriculum Development	13 hrs.
	<ul style="list-style-type: none"> ✓ Need and importance of Curriculum development ✓ Principles of Curriculum development ✓ Factors affecting Curriculum development ✓ Process of Curriculum development 	
UNIT-V	Curriculum Evaluation and Issues	16 hrs.
	<ul style="list-style-type: none"> ✓ Criteria for evaluating the curriculum ✓ Curriculum reforms with special reference to Mudaliyar, Kothari Commission, NPE 1986 and NCF 2005 ✓ Analysis of existing Curriculum State Board/ CBSE/ICSE. 	
MODE OF TRANSACTION		
Group discussion, Lecture-cum –discussion, Pair and Share , Group Work, Panel discussion, Symposium, Assignments, School visits and Sharing of experiences		
SUGGESTED ACTIVITES		
	<ol style="list-style-type: none"> 1 Analysis of School curriculum at different stages 2 Designing an activity based curriculum 3 Textbook analysis 4 Visit to different schools (Pvt. &Govt.) to analyse the role of different personnel in Curriculum development process 5 Evaluation and preparation of a report of existing curriculum of different boards: CBSE/ICSE/State Board 6 Group discussion over issues concerning curriculum in Indian schools 7 Policy analysis on curriculum framework 8 Analysis of position papers on different subjects' curriculum 	32 hrs.
REFERENCES		

Aggrawal, J. C., & Gupta, S. (2005). *Curriculum Development*. New Delhi: Shipra Publisher.

Alaxander, W. M., & Saylor, J. G. (1966). *Curriculum Planning for modern schools*. New York: Holt, Rinhart and Winston Inc.

Balrara, M. (1999). *Principles of Curriculum Renewal*. New Delhi: Kanishka Publishers.

Candra, A. (1977). *Curriculum Development and Evaluation in education*. New Delhi: Sterling Publishers.

Darji, D. R., & Lulla, B. P. (1967). *Curriculum development in secondary schools of Baroda*. Baroda: Sadhana Press.

Erickson, H.L.(2007) concept based curriculum and instruction for the thinking classroom California; corwin press

Hassrin, M. (2004). *Curriculum Planning for elementary education*. New Delhi: Anmol Publishers.

Herbert, J. W. & Geneva, D. H. (1990). *International Encyclopedia of Education Evaluation*. New York: Pergamon Press Oxford House.

Jenkins, D., & Shifrnan, D. M. (1976). *Curriculum an introduction*. London: Pitman Publishing House.

Jhompson, K., and White, J. C. (1975). *Curriculum development*. London: Pitman Publishing

Khan.M.I. and Nigam,B.K.(2007).Curriculum reform change and continuity. New Delhi; kanishka publication

Kumari, S., and Srivastava, D. S. (2005). *Curriculum and Instruction*. New Delhi: Shipra Publishers.

Macdonald, B., & Walker, R. (1976). *Changing the Curriculum*. Britain: Pitman Press.

Musgrave, P. W. (1974). *Contemporary studies in the Curriculum*. Australia: Angus and Roberston Publishers.

Nigam, B. K., & Khan, I. M. (1993). *Evaluation and research in Curriculum Construction*. New Delhi: Kaniska Publishers.

Ornstein, A. C. & Hunkins, F.P. (1988). *Curriculum foundations, Principles and issues* New jersey prentice hall

Panday, M. (2007). *Principles of Curriculum Development*. New Delhi; Rajat publications

Rajput, J. S. (2004). *Encyclopedia of Indian Education*. New Delhi: NCERT.

Satyanarayan, P.V. (2004). *Curriculum development and management*. New Delhi: DPH.

Sharma, R. (2002). *Modern methods of Curriculum Organisation*. Jaipur: Book Enclave.

Sharma, S. R. (1999). *Issues in Curriculum Administration*. New Delhi: Pearl Publishing House.

Sockett, H. (1976). *Designing the Curriculum*. Britain: Pitman Press.

Srivastava, H. S. (2006). *Curriculum and methods of teaching*. New Delhi: Shipra Publishers.

Taba, H. (1962). *Curriculum development theory & practice*. New York: Harcourt, Brace & World Inc.

Yadav, Y.P. (2006). *Fundamentals of Curriculum design*. New Delhi; Shri Sai Printographers

PAPER -VIII

YEAR	II	CREATING AN INCLUSIVE SCHOOL	CREDIT	4+1
Semester	IV		HOURS	64+32
OBJECTIVES:		1.To sensitize regarding the needs of Special children. 2.To understand the concept of Special Education, Main streaming and Inclusion. 3.To analyse the status of Inclusive Education in India with reference to different Policies, Programmes and Acts regarding rehabilitation Special Children.		

	<p>4.To realise the nature and needs of different categories of Special Children.</p> <p>5.To comprehend and apply special techniques of teaching Special Children.</p> <p>6.To analyze the role of Parents, Teachers (special schools/regular), Community, Peers, Principals etc.</p> <p>7.To analyze the role of parents, teachers (Special Schools and Regular / General Schools), community, peers, principals, etc.</p> <p>8.To comprehend and apply the special techniques of teaching the disabled and evaluating impaired children.</p> <p>9.To critically think on issues of special Education and Inclusive Education.</p>	
COURSE CONTENT / SYLLABUS		
UNIT-I	Concept of Special School, Main Streaming and Inclusion	10 hrs.
	<ul style="list-style-type: none"> ✓ Special Education: Concept and History ✓ Different Ways of Main Streaming ✓ Inclusive Education : Concept and Definition ✓ Difference between Integration and Inclusive Education ✓ Factors Affecting Inclusion 	
UNIT-II	National Policies, Programmes and Acts for Inclusive Education	12 hrs.
	<ul style="list-style-type: none"> ✓ NPE-1986, Policies guide lines on Inclusive Education, UNESCO- 2009 ✓ UN convention on Rights of the Child, UNESCO-1989 ✓ UN convention on Rights of the Person with Disability, UNESCO-2006, Acts- RCI Act 1992, PWD Act- 1995, National Trust Act-1999, RTE Act—2009 	
UNIT-III	Understanding Diversities	20 hrs.
	<ul style="list-style-type: none"> ✓ Concepts, characteristics, classification of children with diversities ✓ Visual Impairment ✓ Hearing Impairment ✓ Learning Disability ✓ Locomotor and Neuromuscular Disorders ✓ Autism 	
UNIT-IV	Inclusion in Operation	10 hrs.
	<ul style="list-style-type: none"> ✓ Parameters of Inclusive Education ✓ Issues in special Education and inclusive Education <ul style="list-style-type: none"> ▪ Early detection of disability ▪ Parental Attitude ▪ Community Awareness ▪ Special School versus Integrated school, Inclusive School ▪ Rehabilitation of disabilities ✓ Role of the Parent, Community, Peers, Resource Person, Itinerant Teacher, Shadow teacher, Head master and Teacher. 	
UNIT-V	Inclusive schools and developing Support Networks	12 hrs.
	<ul style="list-style-type: none"> ✓ Models of Inclusive education ✓ Concepts of an Inclusive School- Infrastructure and Accessibility 	

	MODE OF TRANSACTION Lecture, Discussion, Case Study, Field Visits, Problem solving, Film Show	
	<p style="text-align: center;">SUGGESTED ACTIVITIES</p> <ol style="list-style-type: none"> 1. Collection of data regarding children with special needs from Municipal records. 2. Visit to Inclusive Schools and to observe classroom transaction of any one of such school in Ranchi and make a report of the same. 3. Identifying one/two pupils with special needs in the primary schools and preparing a profile of these pupils. 4. Preparation of teaching aids, toys, charts, flash cards for children having any one type of disability.(Visit to Resource Room) 5. Preparation of Lesson Plan and instruction material for teaching students with disability in inclusive school. 6. Developing list of teaching activities of CWSN in the school. 7. Case study of one main streamed (Inclusive) student w.r.to <ol style="list-style-type: none"> a) Role of a parent b) Role of a teacher : Special School teacher, General School Teacher c) Role of Counselor 8. Visit to different institutions dealing with different disabilities and their Classroom observation 	32 hrs.
REFERENCES		
<p>Fimian, M. J., Fafard, M., and Howell, K. W. <i>A Teacher's guide to Human Resources in Special Education: Para Professionals, Volunteers, and peer tutors</i>. Boston: Allyn and Bacon, Inc.</p> <p>Furth, H. (1964). <i>Thinking without Language</i>. New York: Free Press.</p> <p>Hallahan, D. P., and Kauffman, J. K. (1988). <i>Exceptional Children: Introduction to special Education</i>. N.J.: Englewood Cliffs.</p> <p>Jangira, N. K. (1986). <i>Special Education Scenario in Britain and India</i>. Gurgaon: The Academic Press.</p> <p>Kothari, R. G, and Mistry, H. S. (2011). <i>Problems of students and Teachers of the special schools- A study of Gujarat state</i>. Germany: VDM Publication.</p> <p>Meadow, K. P. (1980). <i>Deafness and child development</i>. Berkley, C.A.: University of California Press</p> <p>Mithu, A and Michael, B (2005) <i>Inclusive Education: From rhetoric to Reality</i>, New Delhi: Viva Books Pvt. Ltd.</p> <p>Oza, D. and, Pandit R, (2011). <i>Management of behavioural problems of children with mental retardation</i>. Germany: VDM publication.</p> <p>Premavathy, V. and Geetha, T (2006): <i>Integrated and Inclusive Education DSE(VI) Manual</i>: New Delhi, Krishana Publication.</p> <p>Reed, M. (1984). <i>Educating Hearing Impaired Children</i>. Milton Keynes: Open University Press.</p> <p>Sharma, P. L. (1988). <i>A Teacher's Handbook on Integrated Education of the Disabled</i>. New Delhi: NCERT.</p> <p>Voluntary Health Association of India. <i>Disabled 'Village Children' - A Guide for Community Health Workers, Rehabilitation Workers, and Families</i>.</p>		

EPC-IV (ICT- Part II)

YEAR	II	ICT	CREDIT	2+1
Semester	IV		HOURS	32+32
OBJECTIVES:	<ol style="list-style-type: none"> 1. To acquaint teacher trainees with different parts of Computer System and their functions. 2. To develop competency among teacher trainees to use Online and Off line electronic resources. 3. To acquaint teacher trainees with the facilities available on Internet. 4. To train the teacher trainees in handling MS-Word and MS- Excel. 5. To explore the environment of WINDOW – Operating System. 6. To acquaint teacher trainees with the terminology and Configuration of Computers. 			
COURSE CONTENT / SYLLABUS				
UNIT – IV	Computer as a Learning Tool.			4 HOURS
	<ul style="list-style-type: none"> • Use of Computers in schools, computer as a learning tool. • Use of Internet and e-mail. • Effective browsing of internet for discovering and selecting relevant information. • Survey of education sites. • Downloading and off loading relevant materials. • Interactive use of ICT: Participating in Yahoo group, creating blogs etc. 			
UNIT - V	Computer Software and its type			4 HOURS
	<ul style="list-style-type: none"> • System Software <ul style="list-style-type: none"> ▪ Operating System <ul style="list-style-type: none"> ➤ What is operating system? ➤ Types of Operating system. ➤ Comparison among various types of operating system ➤ Introduction to Windows ➤ Control Panel ➤ File Manager ➤ Accessories • Application Software <ul style="list-style-type: none"> ▪ MS-Office • Generic Software • Customized Software 			
UNIT - VI	MS-Excel			12 HOURS
	<p>Introduction to MS. Excel; Starting MS. Excel, opening a worksheet, saving a worksheet; spreadsheet operations- entering numbers, texts, date & time, formulas; editing worksheet- deleting cells, rows, columns; inserting cells, rows, columns, printing a worksheet; formulas and functions- entering formulas, absolute and relative reference of cell, mixed</p>			

	referencing, operating in formulas, using text, data, date and time in a formula, array and named ranges.	
	<p>MS-PowerPoint Introduction to MS. PowerPoint; Starting MS. PowerPoint, opening a presentation, saving a presentation; Types of Presentation- Blank Presentation, Auto content wizard, Design Template. Slider, Transition, animation, background, image, time setting, animating and rehearsing the presentation, adding sound and narration, automating the presentation, hyperlink, action buttons ,running and controlling a slide show.</p>	12 HOURS
Suggested Activities	<ul style="list-style-type: none"> • MS-Excel <ul style="list-style-type: none"> ▪ Opening a worksheet ▪ Saving a worksheet ▪ Spreadsheet operations- entering numbers, texts, date & time, formulas; ▪ Editing worksheet- deleting cells, rows, columns; inserting cells, rows, columns, ▪ Printing a worksheet; ▪ Formulas and functions- entering formulas, absolute and relative reference of cell, mixed referencing, ▪ Operating in formulas, using text, data, date and time in a formula, array and named ranges. • MS-PowerPoint <ul style="list-style-type: none"> ▪ Starting MS. PowerPoint ▪ Opening a presentation ▪ Saving a presentation ▪ Types of Presentation- Blank Presentation, Auto content wizard, Design Template. Slider, ▪ Inserting transition, animation, background, image, Animating and rehearsing the presentation, ▪ Adding sound and narration ▪ Automating the presentation, ▪ Inserting hyperlink, action buttons etc. ▪ Running and controlling a slide show. 	16 HOURS
		16 HOURS
REFERENCES:		
<ol style="list-style-type: none"> 1. Sinha, P.K.: Computer Fundamentals: Concepts, Systems, and Applications. New Delhi: BPB Publications, 1992. 2. Introduction to Computer Science; 2nd Edition, Pearson. 3. Flynn, Meredith and Rutkosky, Nita: Advanced Microsoft Office 2000. New Delhi: PB Publications, 2000. 4. Hergest, Douglas: Excel 4 for Windows – Instant Reference. Singapore: Tech 		

- Publications PTE Ltd., 1992.
5. Hillman, David: Multimedia Technology and Applications. New York: Delmar Publishers, 1998.
 6. Matthews, Martin: Windows 95 Power Tools. New York: Random House Electronic Publishing, 1995.
 7. Minasi, Mark, Christiansen, Eric, & Shapar, Kristina: Expert Guide to Windows 98. San Francisco: Sybex, 1998.
 8. Nagpal, D.P.: Computer Course. New Delhi: Wheeler Publishing, 2001.
 9. Oberlin, S.K, Kervran, P. & Cox, J: A Quick Course in Windows 3.1. Delhi: Jaico Publishing House, 1993.
 10. Rajaraman, V.: Fundamentals of Computers. New Delhi: Prentice Hall of India Pvt. Ltd., 1997.
 11. Rathbone, Andy: Windows for Dummies. Delhi: Pustak Mahal, 1993.
 12. Ray, John: Special Edition Using Microsoft TCP / IP. New Delhi: Prentice Hall of India Pvt. Ltd., 1997.
 13. Sanders, Donald H.: Computers Today. New York: McGraw Hill Book Co., 1988.
 14. Sansanwal, D.N.: Information Technology and Higher Education. UNIVERSITY NEWS, Vol. 38, No. 46, 2000, pp 1-6.
 15. Sansanwal, D.N. & Suri, S.: Computers in Psychological Testing. JOURNAL OF EDUCATION AND PSYCHOLOGY, Vol. 53, Nos. 1-2-3, 1996.
 16. Underdahl, Brian & Underdahl, Keith: Internet with Web Page / Web Site Design. New Delhi: IDG Books India (P) Ltd., 2000.

EPC- V (ART & AESTHETIC)

YEAR	II	ART & AESTHETIC	CREDIT	2+2
Semester	IV		HOURS	32+64
OBJECTIVES:		<ol style="list-style-type: none"> 1. To understand meaning and concepts of Arts and aesthetics and its significance at secondary level of school education 2. To understand the difference between Education in Arts and Arts in Education 3. To identify of different performing Art forms and artists; dance, music and musical instrument, theatre, puppetry, etc. (based on a set of slides, selected for the purpose) 4. To develop knowledge of Indian Craft Traditions and its relevance in education (based on a set of slides, selected for the purpose) 5. To develop knowledge of Indian Contemporary Arts and Artists; Visual Arts (based on a set of slides, selected for the purpose) 6. To develop knowledge of Indian festivals and its artistic significance 		
COURSE CONTENT / SYLLABUS				
UNIT-I	Appreciation of Art			10 hrs.
	<ul style="list-style-type: none"> ✓ Concepts and forms of arts and craft: an introduction ✓ Significance of art in education ✓ Integrating arts and craft in school curriculum as pedagogical support (with reference to NCT 2005) 			
UNIT-II	Diversity of Indian Art & Craft			7 hrs.

	<ul style="list-style-type: none"> ✓ Identification of different National and Local art and craft forms: <ul style="list-style-type: none"> • Visual art • Performing art • Traditional craft 	
UNIT-III	Art and Aesthetics in Learning Environment	15 hrs.
	<ul style="list-style-type: none"> ✓ Creative writing, Story writing, Poetry writing ✓ Model making, Puppet making, Clay modelling ✓ Decorative art: Rangoli, Wall painting, Poster making, Flower arrangement ✓ Composition of songs, Poems and Prayer songs ✓ Choreography of dance 	
	SUGGESTED ACTIVITIES	64 hrs.
	<ol style="list-style-type: none"> 1. Develop a script of any lesson of their method subject to perform a play or drama 2. Develop a script of street play focussing on girl's education or women empowerment 3. Develop an audio CD based on composed poem, songs, prayer songs etc. 4. Prepare useful products and decorative items from waste material 5. Organize a competition on some decorative/performing art forms in schools during your school internship programme and prepare a report on it. 6. Visit a museum of your area exhibiting different art and craft 	
REFERENCES		
<ol style="list-style-type: none"> 1) Theory of Drama by A.Nicoll 2) Natya Kala by Dhirubhai Thakar 3) Acting is Believing by Charls McGaw 4) Art of Speech by Kethlin Rich 5) Bharat aur Bhartiya Natya Kala by Surendra nath Dixit 6) Abhinav Raga Manjari by Pt. Bhatkhande 7) Abhinav Geet Manjari by Ratanjankar 8) NCERT, (2006). Position Paper by National Focus Group on Arts, Music, Dance and Theatre 		