

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

SEMESTER –WISE COURSE DISTRIBUTION

SEMESTER- I { Full Marks – 475}

Code	Subjects	Marks	Credit	Teaching Hrs.	I. A. Marks	Ex. A. Marks	I.A P.M.	Ex.A P.M.
BEDC101 BEDC101P	Paper-I Education For National Development & Social Change	100 T 25 P	4+1 -	64+32 -	30 25	70 -	12 10	28 -
BEDC102 BEDC102P	Paper-II Learner & Learning	100 T 25 P	4+1 -	64+32 -	30 25	70 -	12 10	28 -
BEDC103 BEDC103P	EPC-I Language Across Curriculum	50T 25P	2+1 -	32+32 -	15 25	35 -	6 10	14 -
BEDC104 BEDC104P	EPC-II Art & Aesthetic	50T 25P	2+1 -	32+32 -	15 25	35 -	6 10	14 -
BEDC105 BEDC105P	EPC-III Health and Physical Education	50T 25P	2+1 -	32+32 -	15 25	35 -	6 10	14 -
Engagement with the field credit								
BEDC101P	Paper-I	Credit 1 = 25 Marks						
BEDC102P	Paper – II	Credit 1 = 25 Marks						
BEDC103P	EPC – I	Credit 1 = 25 Marks						
BEDC104P	EPC – II	Credit 1 = 25 Marks						
BEDC105P	EPC – III	Credit 1 = 25 Marks						

SEMESTER- II {Full Marks – 500}

Code	Subjects	Marks	Credit	Teaching Hrs.	I. A. Marks	Ex. A. Marks	I.A P.M.	Ex. A P.M.
BEDC206 BEDC206P	Paper-III Classroom Organisation & School Management	100T 25P	4+1 -	64+32 -	30 25	70 -	12 10	28 -
BEDC207 M1 BEDC207 M1P	Paper – IV(A) Pedagogy of Subjects Part I (Method I)	50T 25P	2+1 -	32+32 -	15 25	35 -	6 10	14 -
BEDC207 M2 BEDC207 M2P	Paper – IV (A) Pedagogy of Subjects Part I (Method II)	50T 25P	2+1 -	32+32 -	15 25	35 -	6 10	14 -
BEDC208 BEDC208P	EPC –IV ICT- Part I, II	100T 25P	4+1 -	64+32 -	30 25	70 -	12 10	28 -
BEDC209	Internship School Programme	100	4	64	100	-	40	-

Engagement with the field credit

BEDC206P	Paper-III	Credit 1 = 25 Marks
BEDC207M1P BEDC207M2P	Paper – IV (Part A- Method I and II)	Credit 1+1 = 25+25 Marks
BEDC208P	EPC – IV (ICT)	Credit 1 = 25 Marks

SEMESTER- III {Full Marks – 575}

Code	Subjects	Marks	Credit	Teaching Hrs.	I. A. Marks	Ex.A. Marks	I.A P.M.	Ex.A P.M.
BEDC310 BEDC310P	Paper-V Teaching: Approaches & Strategies	100T 25P	4+1 -	64+32 -	30 25	70 -	12 10	28 -
BEDC311M1 BEDC311M1 P	Paper IV (B) Pedagogy of Subjects Part II (Method I)	50T 25P	2+1 -	32+32 -	15 25	35 -	6 10	14 -
BEDC311M2 BEDC311M2 P	Paper IV (B) Pedagogy of Subjects Part II (Method II)	50T 25P	2+1 -	32+32 -	15 25	35 -	6 10	14 -
BEDC312M1 BEDC312M1P BEDC312M2 BEDC312M2P	School Internship	100P 50P 100P 50P	14	448	- 50 - 50	100 - 100 -	- 20 - 20	40 - 40 -
Engagement with the field credit								
BEDC310P	Paper – V			Credit 1 = 25 Marks				
BEDC311M1P	Paper – IV (B) Method – I			Credit 1 = 25 Marks				
BEDC311M2P	Paper – IV (B) Method – II			Credit 1 = 25 Marks				

SEMESTER- IV {Full Marks - 450}

Code	Subjects	Marks	Credit	Teaching Hrs.	I. A. Marks	Ex. A. Marks	I.A P.M.	Ex.A P.M.
BEDC413 BEDC413P	Paper-VI Assessment and Evaluation	100T 25P	4+1 -	64+32 -	30 25	70 -	12 10	28 -
BEDC414 BEDC414P	Paper-VII Knowledge and Curriculum	100T 25P	4+1 -	64+32 -	30 25	70 -	12 10	28 -
BEDC415 BEDC415P	Paper-VIII Creating an Inclusive School	100T 25P	4+1 -	64+32 -	30 25	70 -	12 10	28 -
BEDC416 BEDC416P	EPC-V Art & Aesthetic	50T 25P	2+1 -	32+32 -	15 25	35 -	6 10	14 -
Engagement with the field credit								
BEDC413P	Paper-VI	Credit 1=25 Marks						
BEDC414P	Paper-VII	Credit 1=25 Marks						
BEDC415P	Paper-VIII	Credit 1=25 Marks						
BEDC416P	EPC-V	Credit 1=25 Marks						

- *Passing marks in Theory Paper is 40% 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:		<div><div>1. To understand the concept and aims of Education.</div><div>2. To develop understanding about the social realities of Indian society and its impact on education</div><div>3. To learn the concepts of social Change and social transformation in relation to education</div><div>4. To know the different values enshrined in the constitution of India and its impact on education</div><div>5. To identify the contemporary issues in education and its educational implications</div><div>6. To understand the historical developments in policy framework related to education</div></div>		
COURSE CONTENT / SYLLABUS				
UNIT-I	Concept and Aims of Education			12 hrs.
	<div><div>✓ Meaning of Education – Broader and Narrow</div><div>✓ Bases of Education</div><div>✓ Aims of Education in contemporary Indian society</div><div>✓ Determinants of Aims of Education</div><div>✓ Formal, non-formal and informal education</div><div>✓ Various Agencies of Education</div><div>✓ Vocationalization, Privatization and value education in India</div></div>			
UNIT-II	Social Realities of Indian Society and Education			12 hrs.
	<div><div>✓ Rich Cultural Heritage - Diversity in Indian Society - Issues and concern in Relation to caste, Religion, Language, Region and its impact on education.</div><div>✓ Social Stratification and social change in education<ul style="list-style-type: none">- Social stratification and its impact on education and vice-versa- Concept of social change- Factors of social change- Role of education in the process of social change and its limitation- Challenges of education in Jharkhand</div></div>			
UNIT-III	Educational thought and thinkers			10 hrs.
	<div><div>✓ Comparative analysis of Naturalism, Idealism, Realism and Pragmatism.</div><div>✓ Comprehensive study of contemporary philosophy of education</div><div>✓ Contribution of thinkers</div><div>Indian<ul style="list-style-type: none">- Swami Vivekananda- Rabindranath Tagore- Mahatma Gandhi- Shree Aurobindo</div><div>Western</div></div>			

	<ul style="list-style-type: none"> - Roussau - Dewey 	
UNIT-IV	Education in pre-Independent in India	15 hrs.
	<ul style="list-style-type: none"> - Education in Vedic, Buddhist, Muslim period - Education policies in British period - Wood despatch, Macaulay minute, Hunter commission 	
UNIT-V	Education in Post Independent India	15 hrs.
	<ul style="list-style-type: none"> ✓ Commission and their recommendation <ul style="list-style-type: none"> - Mudaliar - Kothari ✓ National Policy on Education – 1986, POA 1992, NPE 2020 ✓ Universalization of Elementary Education – Sarva Shiksha Abhiyan, RTE ACT 2009 ✓ Rastriya Madhayamik Shiksha Abhiyan (RMSA) ✓ Environmental issues and education 	
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 Bhatia, K. & Bhatia, B. (1983). <i>The philosophical and Sociological foundation of Education</i> . New Delhi: Doaba House. Bhattacharya, S. (2006). <i>Sociological Foundation Of Education</i> : Atlantic Publishers. New Delhi Dhankar, N. (2010). <i>Education In Emerging Indian Society</i> . New Delhi: APH Publishing Corporation. Dhiman, O. P. (1973). <i>Principles and Techniques of Education</i> . Ludhiana: Sharda Brothers. Fagerling, I., and Saha, L. J.O. (1989). <i>Education and National Development (2nd Ed.)</i> . England: Pergamon Press.		

Kakkar, S. B. (1995). *Changing Perspectives in Education*. New Delhi: Vikas Publishing House Pvt. Ltd.

Mehta D. D. (2009). *Education in Emerging Indian Education, Indian Education*. Ludhiyana: Tondan Publications, Books Market.

Mehta, D. D. (2009). *Education in Emerging Indian Education, Indian Education*. Ludhiyana:Tondan Publications, Books Market.

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

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.

Environmental Education by V.C. Pandey (Isha Books)

Environmental Education by Dr. R.A. Sharma and Dr. Shikha Chaturvedi (R. Lall Educational Publishers)

PAPER -II

YEAR	I	LEARNER AND LEARNING	Credit	4+1
Semester	I		Hours	64+32
OBJECTIVES:		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.
	✓ 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.
	✓ 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) ✓ Relevant idea of Piaget, Erikson and Kohlberg on different dimension of growth and development	
UNIT-III	Knowing the learner	15 hrs.
	✓ Individual difference-meaning, characteristics and dimensions of differences in psychological attributes: cognitive abilities, interest, aptitude, creativity, personality, values and self esteem ✓ Factors affecting individual differences ✓ Concepts of intelligence with special reference to Gardener's theory of multiple intelligence and its implications ✓ Understanding differently abled learners: Slow learners, Learning disabled (Dyslexic), Gifted, and disadvantaged	
UNIT-IV	learning and its theoretical perspectives	20 hrs.
	✓ Meaning and definitions of learning- Learning as a process and product ✓ Different viewpoints of learning and their classroom implications (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 ✓ Transfer of learning ✓ Motivation- concept, types of motivation, Maslow's theory of motivation, techniques of motivation	
UNIT-V	Personality development and mental health of learner	9 hrs
	✓ Concept of personality ✓ Theory of personality development ✓ Concept of mental health - factors influencing mental health Adjustment - Area and method of adjustment. ✓ Guidance and counselling	
	<p style="text-align: center;">SUGGESTED ACTIVITIES:</p> <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 of a few and try to understand the factors that may be responsible for their behaviour. 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 	32 hrs.

	<p>their ways of learning.</p> <p>8. List down few (classroom) learning situations involving insightful learning.</p> <p>9. Administration of Psychological tests.</p>	
	<p style="text-align: center;">MODE OF TRANSACTION</p> <p>Lecture, Discussion, Case Study, Experiments, Problem solving, Film Show</p>	
<p style="text-align: center;">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 Bureau of Education, UNESCO, New Delhi, Sterling Publishers, P. 81.</p> <p>Fontana, D. (1995). Psychology for Teachers (3rd edition). The British Psychological Society, London: McMillan in association with BPS Books.</p> <p>Kundu C.L. and Tutoo D.N. (1993) : Educational Psychology, Sterling Publishers Pvt. Ltd.</p> <p>Lindgren, H. C. (1967). Educational Psychology in Classroom (3rd edition). New York: John Wiley and sons.</p> <p>Mangal, S. K. (1984). Psychological Foundations of Education. Ludhiana: Prakash Publishers</p> <p>Mohan J. and Vasudeva P. N. (1993). Learning Theories and Teaching, In Mohan Jitendra (ed.) Educational Psychology, New Delhi, Wiley Eastern Limited, P. 146.</p> <p>Oza, D. J. and Ronak, R. P. (2011). Management of behavioral problems of children with mental retardation. Germany: VDM publication.</p> <p>Papalia D. E., and Sally, W. O. (1978). Human Development. McGraw Hill Publishing Company</p> <p>Singh, A.K (2011). Shiksha Manovigyan Patna: Bharti Bhawan Publishers</p> <p>Skinner, C.E (2004) Educational Psychology. Delhi: Prentice hall</p> <p>Pathak, P.D. (2014) Educational Psychology revised. Agra: Agrawal Publications</p>		

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	Language Proficiency			6 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-III	Communication and its importance			8 hrs.
	<ul style="list-style-type: none">✓ Meaning, concept and principles of communication✓ Process of communication✓ Characteristic of effective communication✓ Effective classroom communication			
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	Communication and its barriers			8 hrs.
	<ul style="list-style-type: none">✓ Types of communication<ul style="list-style-type: none">- Verbal, non-verbal, written, oral and its merits and demerits✓ Barriers of effective classroom communication✓ Barriers to verbal and non-verbal communication			
MODE OF TRANSACTION				
Lecture, discussion, exercises, assignments, language games				
SUGGESTED ACTIVITIES				32 hrs.
<ol style="list-style-type: none">1. Use of Language lab.2. Designing Games and Exercises for developing Listening, Speaking,				

	<p>Writing and Reading Skills</p> <ol style="list-style-type: none"> 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. 7. Blended learning- online, offline 	
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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 &Hymys, 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 (ART & AESTHETICS)

YEAR	I	ART & AESTHETICS	CREDIT	2+1
Semester	I		HOURS	32+32
OBJECTIVES		<ol style="list-style-type: none"> 1. To introduce certain concepts to enhance the understanding of art. 2. To understand the function of art 3. To develop aesthetic sensibilities. 4. To highlight the use of art in creative expression. 5. To give a base in dance, music, theatre and fine arts. 6. To give practical and theoretical understanding and practice in the arts. 		

COURSE CONTENT / SYLLABUS		
UNIT-I	An Introduction of Art and Aesthetics	6 hrs.
	(i) Meaning and definition of Art. (ii) Classification of Art. (iii) Aims and objective of Art. (iv) Meaning, Nature and scope of Aesthetics. (v) Correlation of art and aesthetics	
UNIT-II	A General idea of Performing art	10 hrs.
	(i) A brief introduction to Music, Dance and Drama (ii) (a) Music: (i) Meaning, Nature and definition of music (ii) Origin and development of music (iii) Classification of music (iv) Music in modern era (b) Dance i) Meaning, nature and definition of dance ii) Origin and development of dance iii) Classification of dance iv) A brief study of: • Kathak • Bharatnatyam • Kathakali • Manipuri dance • Oddisi • Kuchipuri • Mohini attam (c) Drama:- i) Origin and development of drama ii) Terms, concepts, forms and elements in drama	
UNIT-III	A brief study of fundamental technical terms:-	6 hrs.
	<ul style="list-style-type: none"> • Nad • Shruti • Swara • Alankar • Aaroh • Auroh • Pakar • Saptak • Alap • Raga • Taan 	

	<ul style="list-style-type: none"> • Taal • Laya 	
UNIT-IV	A General idea of Fine Art	6 hrs.
	<ul style="list-style-type: none"> • A brief introduction to Fine art • Meaning and definition of Fine art • Origin and development of Fine art • Fine art in modern era • Classification of different type of art Drawing, painting, printmaking, sculpture • Various type of different medium in fine art <ol style="list-style-type: none"> a) Pencil b) Pen c) Oil pastel d) Water colour e) Acrylic colour f) Oil colour 	
UNIT-V	Fine Arts and its importance in Life	4 hrs.
	<ol style="list-style-type: none"> (i) Artists and their contribution in education of fine art <ol style="list-style-type: none"> a) Indian Artist b) Western Artist (ii) Art Room- its need, equipments and decoration 	
	MODE OF TRANSACTION	
	<p style="text-align: center;">SUGGESTED ACTIVITIES</p> <ol style="list-style-type: none"> 1. Practice of Swar and Alankar. 2. Practice of two basic Raga; Yaman and Bhupali 3. Practice of some basic taal, kaharwa, dadra, teen taal etc. 4. Practice of some patriotic and devotional songs. 5. Develop a script of any lesson of their method subject to perform a play or drama 6. Organize a competition on some performing art forms (music, dance, drama) in schools, during school internship programme and prepare a report on it. 7. Drawing with the help of pencil and pen both. 8. Sketching with the help of pencil and pen both. 9. Shadowing with the help of pencil and pen both. 10. Mixing of colours, use of oil pastels. 11. Model making 12. Chart making 13. Poster making. 14. Organize a competition of drawing and painting in school during your school internship programme and prepare a report on it. 	32 hrs.
<p style="text-align: center;">REFERENCES</p> <p>➤ Sangeet visharad by vasant.</p>		

- Sangeet Ratnawali by Ashok Kumar yaman.
- Kramik Pustak Malika, Part-I&II by Vishnu digamber palushkar.
- Raag parichay, Part-I&II by Harishchandra.
- Abhinav Raga Manjari by Pt. Bhatkhande.
- Abhivav geet manjari by Ratanjankar.
- Theory of drama by A. Nicoll.
- Natya Kala by Dhirubhain Thakar.
- Acting is Believing by Chals Mcgaw.
- Art of speech by Kethlin Rich
- Bharat aur Bhartiya Natya Kala by Surendra Nath Dixit.
- NCERT,(2006). Position paper by national focus group on Arts, Music, Dance and Theatre.
- Contemporary art in India a perspective (Pran Nath Mago).
- Indian painting (Sivarama Murti)
- Art- The basic of education (Devi Prasad)
- The art and technique of pen drawing (G. Montague Ellwood)
- Pencil shading Landscape-I,II,III,IV (Shanti publication Delhi)
- Aesthetics (Dr. Ranjendra Bajpai)
- Everything U ever wanted to know about water colour

EPC- III (ENHANCEMENT OF PROFESSIONAL COMPETENCY)

YEAR	I	HEALTH AND PHYSICAL EDUCATION	CREDIT	2+1
Semester	I		HOURS	32+32
OBJECTIVES		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 and Hygiene			6 hrs.
	✓ 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 to maintaining health and hygiene			
UNIT-II	Food and Nutrition			6 hrs.
	✓ Concept of balanced diet and its importance ✓ Nutritional deficiencies carbohydrate, protein, vitamin, and minerals and its related diseases			
UNIT-III	Preventive Measures and First Aid			

	<ul style="list-style-type: none"> ✓ First Aid and its equipment in different cases ✓ Life style diseases and remedial measures to improve physical health 	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 ✓ Different Yogasans and their impact on health 	
UNIT-V	Games and Sports	7 hrs.
	<ul style="list-style-type: none"> ✓ Importance of physical exercises and games ✓ Fundamental skills of games and sports and their educational implications ✓ Sports for recreation and competition ✓ Sports awards and scholarship ✓ Rules and regulations of sports- football, hockey, cricket, basketball, volleyball, badminton, kabbadi, athletic, TT. Carom. 	
	MODE OF TRANSACTION Lecture, discussion, workshop, practical work	
	SUGGESTED ACTIVITIES <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 <ol style="list-style-type: none"> 1. Preparation of first Aids 2. Collection of medicinal plants and preparing a report on their importance 3. March-past and Drill exercises. 	32 hrs.
<p style="text-align: center;">REFERENCES</p> <p>Human Development Report 1994, United Nations Development Programme(U.N.D.P.), New Delhi,Oxford University 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.
	✓ Concept of management and administration. ✓ Organisation; Meaning, purpose and characteristics <ul style="list-style-type: none">School Management Committee (SMC) School accreditation: meaning, need, and criteria for school accreditation ✓ SWOT Analysis ✓ Physical facilities in the school- Building, Classroom, Furniture, Equipment, Laboratory, Staffroom, Restroom, Drinking water, Toilets, Library, Health services, Sanitation.			
UNIT-II	Components of School Management			15 hrs.
	✓ School Time Table : Types, and principles for timetable construction ✓ School Records: Types and its Importance ✓ Co-Curricular Activities: Need and Importance, Organisation of Co-curricular activities			
UNIT-III	Leadership and School Management			15 hrs.
	✓ Management process: Planning, Organizing, Directing, Controlling ✓ Managerial skills: Technical skills, Conceptual skills, Human skills ✓ Concept of Leadership ✓ Educational Leadership : Roles and Responsibilities, Quality of a leader ✓ Leadership style			
UNIT-IV	Classroom Management			10

	<ul style="list-style-type: none"> ✓ Meaning of classroom and its concept ✓ Characteristics of Class room ✓ Components of classroom: <ul style="list-style-type: none"> ▪ Teachers (Role of teacher) and ▪ Pupils as recipients and their learning needs ✓ Meaning concept, and approaches of classroom management ✓ Objectives and principle of classroom management ✓ Factors affecting classroom management ✓ Techniques of classroom management: Verbal and Non verbal ✓ Indiscipline in classroom - Concept, Types and Reasons and Contemporary classroom issues : bullying, interpersonal attraction, social media 	hrs.
UNIT-V	Educational Structure in India	12 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. 	
	<p style="text-align: center;">MODE OF TRANSACTION</p> <p>Lecture, Lecture cum Demonstration, Discussion, Practical, Assignments</p>	
	<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. Preparing school time table according to the principles of time table construction 7. Analysis of a time table of any school on the basis of principles of time table construction and suggestions for improvement 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 	32 hrs.

there in.

REFERENCES

- Desai, D. M. (1964). *Outline of Educational Administration in India*. Ahmedabad: A. R. Sheth & Co.
- Desai, D. M. (1964). *Shaikshanik Prakashan*. Baroda: University Granth Nirman.
- Getzels, J. W. et.al. (1968). *Educational Administration as a Social Process*. New York:Harper and Row.
- Goleman, D. (1998). *Working with Emotional Intelligence*. NewYork: Bantam Books.
- Goleman, D. (1995). *Emotional Intelligence*: NewYork: Bantam Book.
- Halpin, A.W. *Theory and Research in Educational Administration*. Collier Mac.
- Kochar, S. K. (1994). *Secondary School Administration*. Jullandhar: Jullandhar University 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, leyal Book depot Meerut.

Paper – IV (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 Pedagogy 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.

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Year	I	TEACHING OF ENGLISH	Credit	2+1
Semester	II		Hours	32+32
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, Vygotskyan 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			32 hrs.
	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,			

	<p>European and African Literature.</p> <ol style="list-style-type: none"> 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. 	
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Semester	II		Hours	32+32
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bdkbZ 2	fgUnh Hkk"kk ds fofo/k :i			5hrs.
	<ul style="list-style-type: none"> ✓ fgUnh ekr`Hkk"kk ds :i esa ✓ fgUnh jk"V^aHkk"kk ds :i esa 			

	<ul style="list-style-type: none"> ✓ fgUnh izFke ,oa f}rh; Hkk"kk ds :i esa ✓ fgUnh Hkk"kk ek;/e ds :i esa 	
bdkbZ 3	<p>Lkafo/kku vkSj f'k{kk lfefr;ksa ds izfrosnu esa Hkk"kk</p> <ul style="list-style-type: none"> ✓ Hkkjrh; lafo/kku esa Hkk"kkvksa dh fLFkfr ¼/kkj 343&351] 350%1½ ✓ jk"V^{ah}; ikB~;p;kZ :ijs[kk ¼,u- lh- ,Q-&2005½ esa Hkk"kk ✓ Hkk"kk leL;k ,oa f=Hkk"kk lw= ✓ cgqHkkf"kd d{kk ,oa mldh pqukSfr;kj 	7 hrs.
bdkbZ 4	<p>Hkk"kk;h dkS'kyksa dk fodkl</p> <ul style="list-style-type: none"> ✓ Jo.k dkS'ky% vFkZ ,oa egRo] Jo.k nks"k] dkj.k] Jo.k nks"ksa dk fujkdj.k ,oa Jo.k dkS'ky dk fodkl ✓ okpu dkS'ky% vFkZ ,oa egRo] mPpkj.k nks"k] dkj.k] mPpkj.k nks"ksa dk fujkdj.k ,oa okpu dkS'ky dk fodkl ✓ iBu dkS'ky% vFkZ ,oa egRo] iBu ds izdkj] iBu nks"k] dkj.k] iBu nks"ksa dk fujkdj.k ,oa iBu dkS'ky dk fodkl ✓ ys[ku dkS'ky% vFkZ ,oa egRo] vkSipkfjd vkSj vukSipkfjd ys[ku] orZuh v'kqf);ksa ds dkj.k] orZuh v'kqf);ksa dk fujkdj.k ,oa ys[ku dkS'ky dk fodkl ✓ Hkk"kk iz;ksx'kkyk 	8 hrs.
bdkbZ 5	<p>Hkk"kk f'k{k.k dh fof/k;kj@iz.kkfy;kj</p> <ul style="list-style-type: none"> ✓ izpfyr fof/k;kj% O;kdj.k iz.kkyh] izR;{k iz.kkyh] vuqokn iz.kkyh ✓ uohu fof/k;kj% ekUVsljh i)fr] fd.Mj xkVZu] ifj;kstuk fof/k ,oa [ksy fof/k ✓ fgUnh f'k{k.k fof/k dh izHkko'khyrk dk ewY;kadu 	7 hrs.
	<p>Xkfrfof/k</p> <ol style="list-style-type: none"> 1. d{kk N% ls vkB rd ds fo[kfFkZ;ksa dh Hkk"kk dk voyksdu djrs gq, fgUnh ds fofo/k :iksa ij ,d fjiksVZ rS;kj dhft,A 2. foKku] lekt foKku vkSj xf.kr dh d{kk N% ls lkr dh fdrcksa ds dqN va'k pqudj fo'ys"k.k dhft,& <ul style="list-style-type: none"> • D;k ;g cPps ds Lrj ds vuq:i gS\ • D;k ;g Hkk"kk lh[kus esa lgk;d gS\ 3. vius vkl&ikl ds ik;p Ldwyksa dk nkSjk dj ;g tkudkj izklr djrs gq, ,d fjiksVZ rS;kj djsa fd f=Hkk"kk lw= dh D;k fLFkfr gS\ 4. Lkquus vkSj cksyus esa vleFkZ cPpksa dks /;ku esa j[krs gq, fgUnh f'k{k.k dh nks xfrfof/k;kj rS;kj djsaA 	32 hrs.

	5. lh-ch-,l-bZ- ,oa >kj[k.M cksMZ ds fo kfFkZ;ksa esa fgUnh Hkk"kk dh fLFkfr dk rqyukRed fo'kys"k.k dhft,A	
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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+1
Semester	II		Hours	32+32
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, 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	32 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+1
Semester	II		Hours	32+32
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	5 hrs.
	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.	
Unit-III	Methods and strategies of teaching learning physical science	8 hrs.
	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, Self learning strategies- Computer assisted instruction, group self learning strategies. Debate, Discussion.	
Unit-IV	Learning Resources	5 hrs.
	Utility of various learning resources, improvised learning resources, presentations in the classroom, use of ICT in teaching learning of Physical Science	
Unit-V	Teaching Learning of Physical Science	8 hrs.
	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.	
	SUGGESTED ACTIVITIES	32 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 guage 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	
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MATHEMATICS METHOD

YEAR	I	TEACHING OF MATHEMATICS	CREDIT	2+1
Semester	II		HOURS	32+32
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.				
OBJECTIVES :		Student teacher will be able to: 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 { With specific illustrations for their use in teaching of Mathematics }	
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. 		32 hrs.

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, 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., 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

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+1
Semester	II		Hours	32+32
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)✓ Use of ICT in teaching and learning of Geography✓ Geography resource room			
Unit-V	Development of Skills associated with Teaching-Learning of Geography			5 hrs.
	<ul style="list-style-type: none">✓ Map reading and analysis (Latitude, Longitude and map references)✓ Case study, action research and Survey✓ Interpretation of Diagrams, Charts, Tables & Graphs✓ Report writing			
	SUGGESTED ACTIVITIES			32 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 data3. Preparing a report on the status of Environmental pollution in Ranchi			

	4. Preparation of various types of learning resources (for hybrid teaching) 5. Preparing self learning instructional material 6. Interpretation of topographical sheet 7. Geographical tools and equipments- a visit to geography laboratory 8. Teaching presentation on various topics of geography at secondary level	
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CIVICS/POLITICAL SCIENCE 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/POLITICAL SCIENCE	Credit	2+1
Semester	II		Hours	32+32
Unit -I	Foundation of Civics /Pol.Sc.Teaching			8 hrs.
	✓ 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 /Pol.Sc.Teaching			8 hrs.
	✓ Discussion method ✓ Project method ✓ Problem solving method			

	<ul style="list-style-type: none"> ✓ Unit method ✓ Source method ✓ Lecture method 	
Unit-III	Learning resources in Civics/Pol.Sc.	5 hrs.
	<ul style="list-style-type: none"> ✓ Audio-visual aids: Picture, Chart, Map, Time line ✓ Text book ✓ Community resources ✓ News paper and Magazine ✓ Civics Room 	
Unit-IV	Curriculum for Civics/Pol.Sc.	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	Current affairs and Issues in Civics/Political Science	6 hrs.
	<ul style="list-style-type: none"> ✓ Need and importance of current affairs and issues ✓ International issues ✓ National issues ✓ Local issues 	
	SUGGESTED ACTIVITIES	32 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+1
Semester	II		Hours	32+32
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			32 hrs.
	<ul style="list-style-type: none">1.Project work using ICT on any History lesson2. Preparation of teaching aids and organizing exhibition3. Analysis of History text book and other curriculum materials4. Visiting History places and writing report5. Preparing time line and time chart			

ECONOMICS METHOD

OBJECTIVES:

- To develop the understanding of the meaning nature and scope of Economics.
- To understand the importance of Economics.
- To acquire knowledge about correlation of Economics with other subjects.
- To develop ability to teach different topics of Economics with various method and strategies so as to teach economics effectively.
- To develop ability to use various learning resources effectively.
- To analyze the curriculum of Economics.
- To develop the ability to understand different economic issues.
- To enhance ability to correlate everyday experiences with learning economics in daily life.

Year	I	TEACHING OF ECONOMICS	Credit	2+1
Semester	II		Hours	32+32
Unit -I	Foundation of Economics Teaching			6 hrs.
	✓ Meaning, Nature and Scope of economics. ✓ Correlation of Economics with other school subjects. ✓ Place of Economics in the school curriculum.			
Unit-II	Aims And Objectives of Economics Teaching			5 hrs.
	✓ Difference between aims and objectives. ✓ Writing of instructional objectives of Economics Teaching in Behavioural terms.			
Unit-III	Methods of Economics Teaching			8 hrs.
	✓ Lecture – cum- Demonstration method. ✓ Mastery – Learning method, Project Method. ✓ Problem-Solving Method. ✓ Discussion Method. ✓ Unit Method.			
Unit-IV	Teaching Aid in Economics			5 hrs.
	✓ Meaning importance, objectives, usage of Teaching Aids. ✓ Types: Traditional and New aids. ✓ Visual, Audio, Audio-Visual Aids.			
Unit-V	Teaching Learning of Economics			8 hrs.
	✓ Concept of Economic Growth and Development. ✓ Planning, Five year plans. ✓ Economic problem of India-Unemployment, Poverty and their data analysis.			
	SUGGESTED ACTIVITIES			32 hrs.

	1. Preparation related to current Economic issues. 2. Visit of local industries - small scale industry or large scale industry. 3. Presentation of economic content through table, chart, pictures, graphs based on Primary and secondary data. 4. Preparing album scrap book related to Economics issues of Ranchi/Jharkhand. 5. Organizing discussion, debates, duly related to Economics issues.	
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COMMERCE METHOD

Year	I	TEACHING OF COMMERCE	Credit	2+1
Semester	II		Hours	32+32
Unit -I	Concept of Commerce			8 hrs.
	✓ Meaning need and scope of Commerce. ✓ Importance of the subject. ✓ Co-relation with other subjects with Business, Maths, Economics, Geography, Book-Keeping, Science language.			
Unit-II	Aims and Objectives of Commerce Teaching			6 hrs.
	✓ Aims and objectives of teaching at Secondary and Higher Secondary level. ✓ Writing of instructional objectives of Commerce Teaching in Behavioural terms. ✓ Difference between aims and objectives.			
Unit-III	Commerce Teacher			4 hrs.
	✓ Qualification and training, qualities. ✓ Roles and responsibilities. ✓ Professional growth.			
Unit-IV	Teaching Aid			6 hrs.
	✓ Meaning importance, objectives usage of Teaching Aid. ✓ Types: Types Traditional and New Aids. ✓ Visual, Audio, Audio Visual Aids.			
Unit-V	Techniques of Commerce Teaching			8 hrs.
	✓ Questioning, Assignment, Seminar. ✓ Workshop, Educational Conference, panel discussion, symposium ✓ Observation Lesson planning: Concept, Importance of lesson planning, construction of observation lesson plan for commerce			

	class	
	SUGGESTED ACTIVITIES	
	<ol style="list-style-type: none"> 1. Preparation related to commerce issues. 2. Visit to local companies, firms regarding maintenance of Accounts. 3. Presentation of Business & commercial contents through-table, chart, pictures and graphs based on primary and secondary data. 4. Preparing album regarding commercial events/activities of Ranchi/Jharkhand. 	32 hrs.

EPC-IV (ICT-Part I)

YEAR	I	ICT	CREDIT	4+1
Semester	II		HOURS	64+32
OBJECTIVES:	<div><div>1. To acquaint teacher trainees with different parts of Computer System and their functions.</div><div>2. To develop competency among teacher trainees to use Online and Off line electronic resources.</div><div>3. To acquaint teacher trainees with the facilities available on Internet.</div><div>4. To train the teacher trainees in handling MS-Word and MS- Excel.</div><div>5. To explore the environment of WINDOW – Operating System.</div><div>6. To acquaint teacher trainees with the terminology and Configuration of Computers.</div></div>			
COURSE CONTENT / SYLLABUS				
UNIT - I	Introduction to Computer System. History and Evolution of Computer System.			2 HOURS
	<div>Characteristics of Computer System<ul style="list-style-type: none">SpeedStorageAccuracyVersatileAutomationDiligenceClassification of Computers<ul style="list-style-type: none">MechanicalElectro MechanicalElectronicDigital<ul style="list-style-type: none">Micro computerMini computerMainframe computer</div>			<div>2 HOURS</div> <div>2 HOURS</div>

	<ul style="list-style-type: none"> ▪ Super computer ▪ Personal Digital Assistant <p>Data representation within Computer System</p> <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 <p>Basic Structure and Components of Computer System</p> <ul style="list-style-type: none"> • Hardware • Software • Firmware • Liveware 	4 HOURS
UNIT - II	Computer Hardware and Its type	2 HOURS
	<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 	2 HOURS 2 HOURS 2 HOURS 1 HOUR 1 HOUR

	<ul style="list-style-type: none"> • Pen Drive etc. • Processor • How to select a Personal Computer <ul style="list-style-type: none"> ▪ Configuration of Computer System 	
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. 	16 HOURS
<p style="text-align: center;">REFERENCES:</p> <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-IV (ICT- Part II)

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	<p>MS-Excel</p> <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 referencing, operating in formulas, using text, data, date and time in a formula, array and named ranges.</p>	12 HOURS
	<p>MS-PowerPoint</p> <p>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, 	16 HOURS

	<ul style="list-style-type: none"> ▪ 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. 	
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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- V

YEAR	II	TEACHING APPROACHES AND STRATEGIES	CREDIT	4+1
Semester	III		HOURS	64+32
OBJECTIVES:		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.
	✓ Meaning and nature of teaching ✓ Maxims of teaching ✓ Characteristics of good teaching ✓ Factors affecting teaching			
UNIT- II	Phases of Teaching			18 hrs.
	Role and functions of teacher in different phases a) Pre active phase of teaching ✓ Visualizing the learner ✓ Framing instructional objectives ✓ Planning of teaching b) Interactive phase of teaching: ✓ Different approaches and skills of teaching ✓ Different strategies and models of teaching: Expository, inquiry c) Post active phase of teaching: ✓ Evaluation and Feedback			
UNIT- III	Developing instructional skills			10 hrs.
	✓ 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.
	✓ Concept and Principles of Self learning			

	<ul style="list-style-type: none"> ✓ Organizing Self learning Strategies: With Special reference to (i) Programmed Instruction (ii) CAI (iii) PSI (iv) Modular Instruction (v) Learning Activity Packages 	
UNIT- V	Professional development programme of teacher	10 hrs.
	<ul style="list-style-type: none"> ✓ Participation in Seminar, Conferences, Workshops, On- line sharing ✓ Participation in various activities of organization ✓ Teacher as a researcher (Action Research) ✓ Membership of professional organizations 	
	<p style="text-align: center;">MODE OF TRANSACTION</p> <p>Group discussion, Lecture-cum –discussion, pair and share , group work, panel discussion, Symposium, Assignments, School Visits and Sharing of experiences</p>	
	<p style="text-align: center;">SUGGESTED ACTIVITIES</p> <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 	32 hrs.
<p style="text-align: center;">REFERENCES</p> <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 – IV (B) (PEDAGOGY OF SUBJECTS PART- II METHOD I & II)

ENGLISH METHOD

Year	II	TEACHING OF ENGLISH	Credit	2+1
Semester	III		Hours	32+32
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.
	Assessment and evaluation 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			32 hrs.
	1. Writing Instructional Objectives and Lesson Plans. 2. Practicing Skills with Lesson Plans. 3. Teaching of Basic Grammatical concepts (Parts of Speech,			

	<p>Tense, Voice, Narration etc.)</p> <p>4. Planning Alternative Teaching Strategies.</p> <p>5. Analysis of Textbooks in English</p> <p>6. Analysis of Language Registers in Different Subjects.</p> <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>	
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References :

Baruah (1988) The English Teacher's Hand Book, New Delhi, Sterling.

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.

Harris (1979) Testing English as a Second Language, Macmillan.

Lado, R. (1963) Language Testing, New York Mc. Graw Hill.

NCERT (1988) National Curriculum for Elementary and Secondary Education : A Frame Work (Revised Edn.).

Verghese, C.P. (1980) Teaching English as a Second Language, Bombay, Somaiya.

Widdowson, M (1988) Teaching Language as communication Oxford O.U.P.

Willis (1989) Teaching English through English ELBS

Yule, George (1996) The Study of Language, Cambridge University Press, Cambridge.

Chomsky, N.1986. Knowledge of Language. New York: Praeger

Mohanty, A. K. Bilingualism in a Multilingual Society: Psycho-social and Pedagogical Implication. Mysore: CIIL.

NCERT. 2005. National Curriculum Framework-2005, NCERT: New Delhi.

NCERT 2000 Continuous and Comprehensive Evaluation. NCERT: New Delhi.

NCERT 2005. Examination Reforms: Position Paper of the National Focus Groups. NCERT: New Delhi.

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.

Brown, J.D. 1996 Testing in Language Programmes. Upper Saddle River, NJ: Prentice Hall Regents.

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Year	II	fgUnh f'k{k.k	Credit	2+1
Semester	III		Hours	32+32

bdkbZ 1	fgUnh f'k{k.k ds mn~ns';	4 hrs.
	<ul style="list-style-type: none"> ✓ ekr`Hkk"kk f'k{k.k ds mn~ns'; ✓ fgUnh f'k{k.k ds lkekU; mn~ns'; ✓ fgUnh f'k{k.k ds fof'k"V mn~ns'; ✓ vuqns'kukRed mn~ns';ksa dks O;kogkfjd :i esa fy[kuk 	
bdkbZ 2	Hkk"kk ,oa lkfgR; dh fofo/k fo/kkvksa dk v;/kiu	7 hrs.
	<ul style="list-style-type: none"> ✓ x f'k{k.k ¼miU;kl] ukVd] fuca/k] dgkuh½% mn~ns';] v;/kiu fof/k;kj] ikB ;kstuk fuekZ.k ✓ dfork f'k{k.k% mn~ns';] v;/kiu fof/k;kj] ikB ;kstuk fuekZ.k ✓ fgUnh O;kdj.k f'k{k.k% mn~ns';] v;/kiu fof/k;kj] ikB ;kstuk fuekZ.k 	
bdkbZ 3	fo ky;h ikB~;Øe esa Hkk"kk ,oa f'k{k.k	6 hrs.
	<ul style="list-style-type: none"> ✓ fgUnh dk vU; fo ky;h fo"k;ksa ds lkFk lg~IEcU/k ✓ fo ky;h ikB~;Øe esa fgUnh dk LFkku ✓ ,d vPNh ikB~;iqLrd dh fo'ks"krk,i ✓ fgUnh f'k{k.k ds xq.k 	
bdkbZ 4	lgk;d f'k{k.k lkexzh	5 hrs.
	<ul style="list-style-type: none"> ✓ vFkZ ,oa egRo] mn~ns';] fuekZ.k ,oa iz;ksx esa lko/kkfu;kj ✓ lkjEifjd lkexzh rFkk uohu lkexzh ✓ n';] JO; rFkk n';&JO; lkexzh 	
bdkbZ 5	Hkk"kk f'k{k.k esa ewY;kadu	8 hrs.
	<ul style="list-style-type: none"> ✓ ewY;kadu dk izR;] egRo ,oa mn~ns'; ✓ lajpukRed rFkk ;ksxRed ewY;kadu ✓ orZeku ijh{kk iz.kkyh dk ewY;kadu] oLrqfu"B ,oa fucU/kkRed ijh{kkvksa ds izdkj] xq.k ,oa nks"k ✓ funkukRed ,oa mipkjkRed f'k{k.k 	
	Xkfrfof/k	32 hrs.
	<ol style="list-style-type: none"> 1. ,d gh fo"k; ij fdUgha rhu v[kckjksa ds laikndh; dh Hkk"kk ij ckrphr dj mudh fo"k; izLrqfr dk fo'ys"k.k djsaA 2. orZeku ijh{kk iz.kkyh dk voyksdu dj mlds xq.k&nks"ksa ij ,d fjiksVZ rS;kj dhft,A 3. Hkk"kk nks"k dks de djus okys nks lgk;d f'k{k.k lkexzh dks rS;kj dj mldks izLrqr dhft,A 4. gLrfyf[kr lekpkj&i= dk fodkl dhft,A 5. f'k{k.k gsrq ikB ;kstuk dk fuekZ.k dhft,A 6. ewY;kadu gsrq iz'u&i= dk fuekZ.k dhft,A 	

vuqeksfnr iqLrds

fgUnh f'k{k.k & jke'kdy ik.Ms;

uwru fgUnh f'k{k.k & HkbbZ ;ksxsUnz thr

fgUnh f'k{k.k & f'k{kk prqosZnh

fgUnh f'k{k.k & ch- ,y- 'kekZ

fgUnh f'k{k.k & ehuk{kh HkVukxj

fgUnh f'k{k.k & fxjh'k ipkSjh] lhek jkuh

fgUnh f'k{k.k ds vk/kkj & ljkst vxzoky] lqj{kk caly] ch- ds- ekgs'ojh

BIOLOGICAL SCIENCE METHOD

Year	II	TEACHING OF BIOLOGICAL SCIENCE	Credit	2+1
Semester	III		Hours	32+32
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			
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">• Concept of evaluation.• Needs and objectives of evaluation• Purposes and functions of evaluation• 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			32 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.			

	<ol style="list-style-type: none"> 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. 	
<p style="text-align: center;">References</p> <p>Das, R.C. (1985) Science Teaching in Schools, Sterling Publication</p> <p>Innovations in Teacher Education Science Teacher Education Project (STEP), Mac Grow Hills, New York.</p> <p>Heiss, E.D., Obourn E.S. and Hoffman, C.W. (1961) Modern Science Teaching : by Macmillan Publication, New York.</p> <p>Mangal, S.K. : Teaching of Physical and life Sciences, Arya Book Dept., New Delhi.</p> <p>Mason, M and Ruth T. Peters : Teacher Guide for life Sciences, Published by D. Van Nostran Company, Inc., New York.</p> <p>NCERT (1988) National Curriculum for Elementary and Secondary Education : A Framework (Revised Ed.)</p> <p>NCERT (1995) Environmental Education in the School Curriculum, New Delhi.</p> <p>NCERT (1996) Science for Classes IX and X, New Delhi.</p> <p>NCERT Environment Education : Process for Pre-service Teacher Training Curriculum Development, UNESCO – UNEP International series 26 prepared by NCERT, New Delhi.</p> <p>NCERT : Procedures for Developing an Environmental Education Curriculum, UNESCO-UNEP International Environmental Education Programme, Environmental Education series 22, New Delhi.</p> <p>Nair, P.K.G. (1985) Principles of Environmental Biology, UNESCO Training of Science Teachers and Educators, Bangkok UNESCO</p> <p>Sood, J.K. Teaching Life Sciences, Published by Kohli Publication</p> <p>Sharma, R.C. : Modern Science Teaching, Dhanpat Rai and Sons, Delhi.</p> <p>Sytnik, K.M. : Living in the Environment : A Source Book for Environmental Education, UNESCO</p> <p>NCERT, Position paper of NFG on Teaching of Science-2005.</p> <p>NCERT, Position paper of NFG on Examination Reforms-2005</p> <p>NCERT, Position paper of NFG on Aims of Education -2005.</p> <p>Sutton, CR and Hayson JH, The Art of the Science Teacher, MC Graw Hill Book company Ltd.</p>		

(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+1
Semester	III		Hours	32+32
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 Types of Assessment, Types of tests - Written test, practical test, online test, activities etc.			
Unit-III	Construction of tools of Assessment			6 hrs.
	Developing different types of questions, Essentials of a good question paper, Blue print.			
Unit-IV	Physical Science curriculum for schools in India			6 hrs.
	Curriculum reforms suggested in NCF 2005, NEP 2020 Process of curriculum development.			
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			32 hrs.
	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	
<p style="text-align: center;">Reference</p> <p>Teaching of science. Prof. J.K. Sood.</p> <p>Teaching of Science – S.P. Kulshreshtha (2008) R. Lall Book Depot. Meerut.</p> <p>Modern Methods of teaching Physics. Shalini Wadhwa (2001) Sarup & Sons Publication.</p> <p>Teaching of Physical sciences.- Dr S.K. Mangal Shubhra Mangal (2007) International publishing house.</p> <p>HKSfrd foKku f'k{k.k izks- ts- ,l- usxh ¼2012& 2013½ vxzoky icfyds'ku</p> <p>NCERT, National Curriculum Framework -2005.</p> <p>NCERT, Position Paper of NFG on Teaching of Science-2005.</p> <p>NCERT, Position Paper of NFG on Habitat and Learning-2005.</p> <p>NCERT, Position Paper of NFG on Examination Reforms-2005.</p> <p>NCERT, Position Paper of NFG on Aims of Education-2005</p> <p>NCERT, Position Paper of NFG on Gender Issues in Education-2005.</p> <p>NCERT, Position Paper of NFG on Education for Peace- 2005.</p> <p>Vaidya, Science Teaching for 21st Century, Deep and Deep Publications (1999).</p> <p>Dat Poly, Encyclopedia of Teaching Science, Sarup and Sons, New Delhi (2004).</p> <p>Radha Mohan, Innovative Science Teaching for Physical Science Teachers, Prentice Hall of India Pvt. Ltd., New Delhi (2002).</p> <p>Sutton, CR and Hayson JH, The Art of the Science Teacher, MC Graw Hill Book Company Ltd. (1974).</p> <p>Their, DH, Teaching Elementary School Science: A Laboratory Approach Sterling Publication Pvt. Ltd. (1973).</p> <p>Science and Children (NSTA's peer reviewed journal for elementary teachers).</p> <p>Science Teach (NSTA's per reviewed journal for secondary science teachers).</p> <p>Journal of Research in Science Teaching (Wiley-Blackwell).</p> <p>International Journal of Science Education.</p> <p>Misconceptions in chemistry, addressing perceptions in Chemical Education, Barke, Hans Dieter, Al Yitbarek, Sileshi, Publication of Springer.</p> <p>Turner Tony and Wendy Di Macro, Learning to Teach School Experience in secondary school teaching. Routledge, London and New York.</p> <p>Taber K.S.: Chemical Misconceptions-Prevention, Diagnosis and cure volume 1 and 2,</p>		

London 2002 (Royal Society of Chemistry)

Web Sites

1. [http:// www.tc.columbia.edu/mst/science](http://www.tc.columbia.edu/mst/science) ed/courses. asp.

2. <http://www.edu.uwo.ca>

MATHEMATICS METHOD

YEAR	II	TEACHING OF MATHEMATICS	CREDIT	2+1
Semester	III		HOURS	32+32

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.
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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 	

	<ul style="list-style-type: none">• 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 The following practical work be carried out by the student teachers : <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.		32 hrs.
REFERENCES <i>(English)</i> Anice, J. (2008). <i>Methods of Teaching Mathematics</i> . New Delhi: Neelkamal Publications. Butler, C. H., Wren F. L. and Banks, J. H. (1971). <i>The teaching of Secondary Mathematics</i> . New York : McGraw Hill. Coney, T. J., Davis, G. J., and Hen Derson, K. B. (1975). <i>Dynamics of Teaching Secondary School Mathematics</i> . Boston: Houghton - Mifflin co. Ediger, M., and Rao, B. (2000). <i>Teaching Mathematics successfully</i> . New Delhi: Discovery Publishing House. Kidd, P. K., Myers, S. S., Cilley David, M. (1970). <i>The Laboratory Approach to Mathematics</i> . Chicago: Science Research Associates Inc. Kinney, L. B., and Purdy, C. R. (1965). <i>Teaching of Mathematics in Secondary School</i> . 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 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., Sejal, 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

GEOGRAPHY METHOD

Year	II	TEACHING OF GEOGRAPHY	Credit	2+1
Semester	III		Hours	32+32
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			
Unit-II	Assessment of Learning in Geography			7 hrs.
	Evaluation: different dimensions <ul style="list-style-type: none">✓ Meaning and purpose of evaluation in Geography✓ Formative and Summative evaluation✓ Achievement test, Diagnostic test & Online test✓ Blue print and essentials of a good question paper			
Unit-III	Geography in school education in India			6 hrs.
	<ul style="list-style-type: none">✓ Recommendations of Kothari commission (1964-66), NPE, 1986; POA 1992, NPE 2020✓ Curriculum reforms (NCF, 2005)			
Unit-IV	Geography Curriculum and related aspects			7 hrs.
	<ul style="list-style-type: none">✓ Concept of Curriculum and its importance in Geography teaching✓ Relevance of Geography curriculum of different boards on India✓ Characteristics of a good Text book			
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			32 hrs.
	<ol style="list-style-type: none">1. Preparing a lesson plan/Unit plan2. Preparing learning resources contextually3. Writing instructional objectives for a lesson4. Constructing an achievement test5. Preparing blue print for a test6. Conducting an activity on environmental conservation in secondary school during practice teaching and preparing a report on it			

	7. Comparative analysis of curriculum of any two/three boards of secondary school education of India 8. Assessment of text books of Geography at secondary level of education	
<p style="text-align: center;">Reference</p> 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. 11. Arora K.K.(1976), the teaching of Geography, Jalandhar: Prakash Brothers. 12. Verma J.P. (1960) Bhugol Adhyan Agra, Vinod Pustak Mandir.		

CIVICS/POLITICAL SCIENCE METHOD

Year	II	TEACHING OF CIVICS/POLITICAL SCIENCE	Credit	2+1
Semester	III		Hours	32+32
Unit -I	Teaching process in Civics /Pol. Sc.			8 hrs.
	✓ 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 /Pol. Sc.			6 hrs.
	A. Evaluation–different dimensions ✓ Meaning and purpose of evaluation in Civics ✓ Formative and summative evaluation ✓ Various tools and techniques of evaluation in Civics ✓ Construction of unit test			
Unit-III	New Dimensions/Innovation in Civics /Pol. Sc.			6 hrs.
	✓ Micro Teaching, Team Teaching, Simulated Teaching, Programmed Instruction, Interactive Approach ✓ Use of ICT in Civics/ Pol. Sc. teaching			

Unit-IV	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	
Unit-V	Civics /Pol. Sc. Teaching for National and International Understanding	6 hrs.
	<ul style="list-style-type: none">✓ Meaning of National understanding and International understanding✓ Need of National and International understanding✓ Role of Civics in promoting National and International understanding	
	SUGGESTED ACTIVITIES	32 hrs.
	<ol style="list-style-type: none">1. Preparing teaching aids2. Constructing unit test during practice teaching3. Using ICT for preparing one topic of Civics at secondary stage4. Visit to political institution/Govt. Institution and submit an analytical report on the functioning of the elected bodies5. To meet the elected representatives and submit a report on the basis of discussion/ Interview with them	
Reference		
<p>Bhatnagar, CPR, Bhushan and Khanna : A Preparation and Evaluation of Text Books in Social Studies.</p> <p>Binning and Bining : Social Studies in Secondary Schools</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>Martorella, PH : Social Studies Strategies – Theory and Practical</p> <p>NCERT, Improving Civics Teaching, New Delhi</p> <p>NCERT (1988) National curriculum for Elementary and Secondary Education : A Framework (Review Edn.)</p> <p>Social Studies : - A Draft Syllabus for Classes I to X</p> <p>Yajnik, K.S. : The Teaching of Social Studies in India</p> <p>Tyagi Guru Sharan Das : Nagrik Shastra Ka Shikshan.</p> <p>Singh Rampal : Nagrik Shastra Shikshan</p> <p>National Curriculum Frame Work, 2005, NCERT, New Delhi.</p> <p>Position paper by National Focus on Teaching of Social Sciences</p> <p>Report of the Secondary Education Commission, 1953, Ministry of Education, Government</p>		

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, CAFE, 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+1
Semester	III		Hours	32+32
Unit -I	Issues and concerns in History			8 hrs.
	✓ 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.
	✓ 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.
	✓ 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 	
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	
	<ol style="list-style-type: none"> 1. Planning of lesson on History units of class 7th, 8th, 9th, 10th 2. Preparing question papers 3. Construction of objectives types of tests 4. Assignment on current issues 	32 hrs.
<p style="text-align: center;">References:</p> <p>Ghosh, K.D. (1951) : Creative Teaching of History, Bombay, Oxford University Press</p> <p>NCERT (1970) – Teaching History in Secondary Schools, New Delhi</p> <p>Vajreswari, R. (1966) A Handbook of History Teachers Bombay Allied Publishers</p> <p>Tyagi Guru Sharan Das : Ethihis Shikshan</p> <p>Agarwal, J.C. : Teaching of History : A practical approach.</p> <p>Kochar , S.K. : Teaching of Hostory</p> <p>Sharma, R.A. : Itihis Shikshan</p> <p>National Curriculum Frame Work, 2005, NCERT, New Delhi.</p> <p>Position paper by National Focus on Teaching of Social Sciences</p> <p>Report of the Secondary Education Commission, 1953, Ministry of Education, Government of India. New Delhi.</p> <p>The Curriculum for the Ten Year School- a Frame Work, 1975, NCERT, New Delhi.</p> <p>Learning without Burden, Report of the National Advisory Committee, 1993, Ministry of Human Resource</p> <p>Development, Government of India.</p> <p>Delors J., (1996) Learning the Treasure within. Report of International commission on Education for 21st Century-UNESCO.</p> <p>Mc. Graw Hill Book company, Inc, New York, 1952.</p> <p>Bank, James, a (1977) teaching strategies for the social studies. Enquiry, valuing and decision making, Wesly Publishing comp. Massachusetts.</p> <p>Dhamija, Neelam (1993) Multimedia Approaches in Teaching Social Studies. Human</p>		

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

ECONOMICS METHOD

Year	II	TEACHING OF ECONOMICS	Credit	2+1
Semester	III		Hours	32+32
Unit -I	Techniques of Economics Teaching			6 hrs.
	✓ Questioning, Assignment, Seminar. ✓ Workshop, Educational Conference. ✓ Symposium.			
Unit-II	Lesson Planning			5 hrs.
	✓ Concept. ✓ Objectives and importance. ✓ Characteristics of an Ideal lesson-plan. ✓ Construction of Lesson-plan for Economics teaching.			
Unit-III	New Dimensions/ Innovation in Economics Teaching			6 hrs.
	✓ Micro teaching cycle, Team teaching. ✓ Simulated teaching. ✓ Action Research in Economics teaching.			
Unit-IV	Curriculum for Economics			7 hrs.
	✓ Principles of curriculum construction in Economics. ✓ Importance of Economics curriculum at secondary and higher secondary stage. ✓ Curriculum reforms (based on NCF 2005) ✓ Innovations in curriculum with reference to NEP 2020			
Unit-V	Evaluation in Economics			8 hrs.
	✓ Meaning, importance and Principles of Evaluation in Economics. ✓ Difference between Formative and summative evaluation. ✓ Different techniques of evaluation in Economics.			
	SUGGESTED ACTIVITIES			32 hrs.
	1. Preparing lesson plan. 2. Preparing teaching aids.			

	3. Demonstration of Micro-teaching skills 4. Constructing unit test and objective based test. 5. Writing report on the evolution of curriculum of different boards. 6. Use of ICT for preparing topics in Economics.	
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References

- Binning and Binning : Social Studies in Secondary Schools
- Martorella, P.H : Social Studies Strategies – Theory and Practical
- NCERT (1988) National curriculum for Elementary and Secondary Education : A Framework (Review Edn.)
- Yajnik, K.S. : The Teaching of Social Studies in India
- 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.
- Learning without Burden, Report of the National Advisory Committee, 1993, Ministry of Human Resource Development, Government of India.
- Mishra R.C, Lesson Planning. A.P.H publishing corporation New Delhi.
- Tyagi Gursharan Arthashastra Shiksha Ka Pranali Vigyan
- Parween, Abida & others Samajik Adhyan Shikshan , Astha Prakashan, Jaipur.
- Sharma B.L & others, Samajik Vigyan Shikshan, R.Lal Book Depot, Meerut U.P
- Pandey Mridula: Dictionary of Education Rajat publication New Delhi.
- Aggarwal J.C: Teaching of Economics
- NCERT/ ICSE/JAC Board Books of Economics (Class 9th , 10th , 11th , and 12th)

COMMERCE METHOD

Year	II	TEACHING OF COMMERCE	Credit	2+1
Semester	III		Hours	32+32
Unit -I	Method of Teaching			10 hrs.
	<div>✓ Expository based – Lecture, debate, discussion story-telling.</div> <div>✓ Discovery based – Experimental, inquiry, problem-solving.</div> <div>✓ Activity based – Simulation/gaming, survey, case study, project.</div> <div>✓ Individualised Instructive based-Computer assisted instruction modulars, mastery learning, Dalton plan.</div>			

Unit-II	Lesson Planning	6 hrs.
	<ul style="list-style-type: none"> ✓ Concept. ✓ Importance of lesson plan. ✓ Characteristics of ideal lesson plan. ✓ Construction of lesson plan for commerce teaching. 	
Unit-III	Text-book in Commerce	4 hrs.
	<ul style="list-style-type: none"> ✓ Characteristics, importance of text-books. ✓ Criteria for their selection. 	
Unit-IV	Co-curricular Activities	4 hrs.
	<ul style="list-style-type: none"> ✓ Objective, importance. ✓ Principles of organisation. 	
Unit-V	Evaluation	8 hrs.
	<ul style="list-style-type: none"> ✓ Meaning importance and principles of Evaluation of commerce ✓ Difference between formative and summative evaluation. ✓ Various tools and techniques of evaluation in commerce. 	
	SUGGESTED ACTIVITIES	32 hrs.
	<ol style="list-style-type: none"> 1. Preparing Lesson plan. 2. Preparation of teaching aids. 3. Demonstration of Micro-teaching skills. 4. Constructing unit test and objective based test. 5. Use of ICT for preparing topics for commerce. 	

References

- Pedagogy of School Commerce
 - Dr. S.S. Chandra, Dr. N.L.Sharma, Dr. Amit Sharma
- Pedagogy of School Subject Commerce
 - Dr. R.P. Singh and Dr. Imtiyaj Mansoori
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{SEMESTER- IV}

PAPER- VI

YEAR	II	ASSESSMENT AND EVALUATION	CREDIT	4+1
Semester	IV		HOURS	64+32
OBJECTIVES:		1. To understand the nature of assessment and evaluation and their role in teaching-learning process.		

	<div>2. To understand the perspectives of different schools of learning on learning assessment realize the need for school based and authentic assessment.</div> <div>3. To examine the contextual roles of different forms of assessment in schools.</div> <div>4. To understand the different dimensions of learning and the related assessment procedures, tools and techniques.</div> <div>5. To develop assessment tasks and tools to assess learner’s performance Analyze, manage, and interpret assessment data.</div> <div>6. To analyze the reporting procedures of learners’ performance in schools.</div> <div>7. To develop indicators to assess learners performance on different types of tasks.</div> <div>8. To examine the issues and concerns of assessment and evaluation practices in schools.</div> <div>9. To understand the policy perspectives on examinations and evaluation and their implementation practices.</div> <div>10. To tracing the technology bases of assessment practices and other trends at the international level.</div>	
COURSE CONTENT / SYLLABUS		
UNIT-I	PERSPECTIVES ON ASSESSMENT AND EVALUATION	18 hrs.
	<div>✓ Meaning of Measurement and Evaluation in Education</div> <div>✓ Characteristics of the evaluation</div> <div>✓ Purpose uses and types of evaluation</div> <div>✓ Concept of instructional objectives and its classification</div> <div>✓ Writing instructional objectives- Bloom’s taxonomy and RCEM approach.</div> <div>✓ Reporting evaluation results.</div>	
UNIT-II	Characteristics of Standardized tests	6 hrs.
	<div>✓ Validity – meaning, concepts and its types</div> <div>✓ Reliability - meaning, concepts and its types</div> <div>✓ Objectivity - meaning, concepts and its types</div> <div>✓ Steps of standardisation of tests</div>	
UNIT-III	Major Tools of Evaluation and their uses	12 hrs.
	<div>✓ Tools and techniques of evaluation</div> <div>✓ Paper pencil tests, Oral tests, and Performance tests</div> <div>✓ Intelligence tests and aptitude tests</div> <div>✓ Rating scale</div> <div>✓ Check list</div> <div>✓ Anecdotal records</div> <div>✓ Socio-metric technique</div> <div>✓ Interview, Questionnaire and Inventory</div>	
UNIT-IV	Classroom Achievement Tests	12 hrs.
	<div>✓ Achievement & Diagnostic tests</div> <div>✓ Characteristics of a good test</div> <div>✓ Types of achievement test.</div> <div>- Types of classroom achievement test</div>	

	<ul style="list-style-type: none">✓ Preparation of blue print✓ Relating test items and specific behavioural objectives✓ Improving the limitations of different types of test	
UNIT-V	Elementary Statistics in Educational Evaluation	16 hrs.
	<ul style="list-style-type: none">✓ Organization of Data: Frequency Distribution✓ Graphical representations of grouped data✓ Measures of Central Tendency✓ Variability with special reference to Standard Deviation✓ Correlation Coefficient: Rank difference method✓ Normal Probability Curve and its applications✓ Fundamental idea of Standard Scores (T-test & Z-test)	
	MODE OF TRANSACTION Lecture, Team Teaching, Practical Work, Group Discussion, Presentation by Students, Unit Test	
	SUGGESTED ACTIVITIES 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). <i>Essentials of Educational Measurement</i> . New Delhi: PHI Learning PVT. LTD. Garrett, H.E. (2008). <i>Statistics in Psychology and Education</i> . Delhi: Surjeet Publication. Gupta, S. K. (1994). <i>Applied Statistics for Education</i> . Mittal Publications. Mehta, S. J., and Shah, I. K. (1982). <i>Educational Evaluation</i> . Ahmedabad: Anand Prakashan (Gujarati). Rani, P. (2004). <i>Educational Measurement and Evaluation</i> . New Delhi: Discovery Publishers. Rawat, D. S. (1970). <i>Measurement, Evaluation and Statistics in Education</i> . , New Delhi: New Raj Book Depot. Reynolds, C.R., Livingston, R.B., and Willson, V. (2011). <i>Measurement and Assessment in Education</i> . New Delhi: PHI Learning PVT. LTD. Ten Brink, T. D. (1974). <i>Evaluation - A Practical Guide for Teachers</i> . New York: McGraw Hill Book Co. Thorndike, R.M. (2010). <i>Measurement and Evaluation in Psychology and Education</i> . New Delhi: PHI Learning PVT. LTD. Yadav, M. S. and Govinda, R. (1977). <i>Educational Evaluation</i> , Ahmedabad: Sahitya Mudranalaya. Rajput, J. S. (2004). <i>Encyclopedia of Indian Education</i> . New Delhi: NCERT. Satyanarayan, P.V. (2004). <i>Curriculum development and management</i> . 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.
 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- 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.
	✓ Concept of Knowledge ✓ Source of knowledge ✓ Forms of knowledge ✓ Difference between i. Information & Knowledge ii. 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.
	✓ 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.
	✓ Meaning, nature and concept of curriculum ✓ Types of curriculum ✓ Components of curriculum ✓ Principles of curriculum development ✓ Process of curriculum development			
UNIT-IV	Curriculum Evaluation and Issues			13

	<ul style="list-style-type: none"> ✓ Basis for evaluation of the curriculum ✓ Curriculum reforms with special reference to Mudaliyar, Kothari Commission, NPE 1986 and NCF 2005 ✓ Analysis of existing Curriculum State Board/ CBSE/ICSE. 	hrs.
UNIT-V	Gender Issues in Curriculum	16 hrs.
	<ul style="list-style-type: none"> ✓ Gender Identities and socialization ✓ Gender in school: Curriculum, Text books, Classroom processes and student –teacher interactions ✓ Overcoming gender Stereotypes ✓ Working towards gender equality in the classroom (need and strategies) ✓ Empowerment of women: Strategies and Issues 	
	<p style="text-align: center;">MODE OF TRANSACTION</p> <p>Group discussion, Lecture-cum –discussion, Pair and Share , Group Work, Panel discussion, Symposium, Assignments, School visits and Sharing of experiences</p>	
	<p style="text-align: center;">SUGGESTED ACTIVITES</p> <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 9 Analysis of textual materials from the perspective of gender bias and stereotypes 10 Debates and discussion on violation of rights of girls and women 	32 hrs.
<p style="text-align: center;">REFERENCES</p> <p>Aggrawal, J. C., & Gupta, S. (2005). <i>Curriculum Development</i>. New Delhi: Shipra Publisher.</p> <p>Alaxander, W. M., & Saylor, J. G. (1966). <i>Curriculum Planning for modern schools</i>. New York: Holt, Rinhart and Winston Inc.</p> <p>Balrara, M. (1999). <i>Principles of Curriculum Renewal</i>. New Delhi: Kanishka Publishers.</p> <p>Candra, A. (1977). <i>Curriculum Development and Evaluation in education</i>. New Delhi: Sterling Publishers.</p> <p>Darji, D. R., & Lulla, B. P. (1967). <i>Curriculum development in secondary schools of Baroda</i>. Baroda: Sadhana Press.</p> <p>Erickson, H.L.(2007) concept based curriculum and instruction for the thinking classroom California; corwin press</p> <p>Hassrin, M. (2004). <i>Curriculum Planning for elementary education</i>. New Delhi: Anmol Publishers.</p> <p>Herbert, J. W. & Geneva, D. H. (1990). <i>International Encyclopedia of Education Evaluation</i>. New York: Pergamon Press Oxford House.</p>		

Jenkins, D., & Shiffrnan, 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.

Ornststein, 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.

Socket, 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

Gender Inequality & Women Empowerment; Anil kumar. Tai Axis Books Pvt.Ltd.

Gender Mainstreaming and issues; S. Basik. Adhyayan publishers & distributions

Gender Sociology; Sumit Dutta(2013). Wisdom press

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. 4.To realise the nature and needs of different categories of Special Children. 5.To comprehend and apply special techniques of teaching Special Children. 6.To analyze the role of Parents, Teachers (special schools/regular), Community, Peers, Principals etc. 7.To analyze the role of parents, teachers (Special Schools and Regular / General		

	<p>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 and Main Streaming <ul style="list-style-type: none"> ✓ Concept of Special Education ✓ Factors affecting special education ✓ Mainstreaming through special education 	10 hrs.
UNIT-II	Understanding Diversities <ul style="list-style-type: none"> ✓ Children with special needs: Concept and classification ✓ Visual impairment ✓ Hearing impairment ✓ Intellectually disabled ✓ Locomotor and neuromuscular disorders(orthopaedic impairment) ✓ Autism 	12 hrs.
UNIT-III	National Policies its acts and international convention for inclusive education. <ul style="list-style-type: none"> ✓ NPE- 1986, NEP 2020 ✓ RCI Act 1992, PWD Act-1995, National Trust Act- 1999, RTE Act- 2009, RPWD Act - 2016 ✓ UN convention on Rights of the Child, UNESCO-1989 ✓ UN convention on Rights of the Person with Disability, UNESCO-2009 ✓ Policies guide lines on inclusive education UNESCO- 2009 	20 hrs.
UNIT-IV	Inclusive Education <ul style="list-style-type: none"> ✓ Concept of inclusive education ✓ Difference with special, integrated and inclusive education ✓ Models of inclusive education ✓ Concept of an inclusive school- infrastructure and accessibility, issues and challenge. 	10 hrs.
UNIT-V	Inclusion in Operation <ul style="list-style-type: none"> ✓ Factors affecting inclusion ✓ Rehabilitation of disabilities: Role of the Parents, Community, Peers, Resource Person, Itinerant Teacher, Shadow teacher, Headmaster and Teacher. 	12 hrs.
	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.
<p style="text-align: center;">REFERENCES</p> <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</i></p>		

EPC- V (ART & AESTHETICS)

YEAR	II	ART & AESTHETICS	CREDIT	2+1
Semester	IV		HOURS	32+32
OBJECTIVES		<div>1. To understand the significance of art at secondary level of school education.</div> <div>2. To understand the difference between education in arts and arts in education.</div> <div>3. Promote among the student-teachers aesthetic sense, time sense, tolerance and self-confidence.</div> <div>4. To introduce the great artists.</div> <div>5. To develop knowledge of Indian craft traditions and its relevance in education (based on a set of slides, selected for the purpose)</div> <div>6. To develop knowledge of Indian contemporary arts and artists; visual arts (based on a set of slides, selected for the purpose)</div>		
COURSE CONTENT / SYLLABUS				
UNIT-I	Application of art in academics			8 hrs.
	<div>(i) Significance of art in education.</div> <div>(ii) Integrating arts in school curriculum (with reference to NCTE 2005)</div> <div>(iii) Correlation of art with other school subjects.</div> <div>(iv) Role of art education in B.Ed course.</div>			
UNIT-II	Decorative arts			6 hrs.
	<div>(i) Concepts and forms of arts and craft</div> <div>(ii) Difference between Fine art and decorative arts/crafts</div> <div>(iii) Integrating arts and craft in school curriculum as pedagogical support.</div> <div>(iv) Identification of different National and Local art and craft forms</div> <div>(a) Fine art</div> <div>(b) Craft</div>			
UNIT-III	Study of the following sculptures			6 hrs.
	<div>(i) Symbol player Sun temple (Konar, Orissa)</div> <div>(ii) Descent of Ganga (Tamilnadu)</div> <div>(iii) Lakshmi,Narayana (Khajuraho M.P)</div> <div>(iv) Lion capital from (Sarnath)</div> <div>(v) Seated Buddha from Katra Tila Mathura</div> <div>(vi) Mother and Child (Vimla Shah Temple, Mount Abu, Rajasthan)</div>			
UNIT-IV	Introduction of Musical Instruments, their uses and artists			6 hrs.
	<div>(i) Classification of Instruments</div> <div>(ii) Tat vadya</div> <div>(iii) Sushir vadya</div> <div>(iv) Avnad vadya</div> <div>(v) Ghan vadya</div> <div>(vi) Importance of instruments in music.</div>			

UNIT-V	Identification of Folk Instruments and Regional performing art forms of India	6 hrs.
	(i) Folk songs of India (ii) Folk Instruments of India (iii) Folk Dances of India	
	MODE OF TRANSACTION	
	SUGGESTED ACTIVITIES <ol style="list-style-type: none"> Decorative art. <ul style="list-style-type: none"> Pot Painting. Glass Painting Wall Painting. Creativities with paper Create some crafts. Prepare useful Products and decorative items form waste material. Basic knowledge of water colour. Organize a workshop of fine art. Organize a competition of drawing and painting. Practice of Alankar with the use of komal and tivra swar. Practice of two basic Raga: Bhairav and Bilawal. Practice of Patriotic and Folk songs. Practice of Dugun and chaugun of taal keharwa, dadra and teen taal. Organize a solo and group competition of singing. Organize a solo/group competition of dance. Develop an audio CD based on self composed poem, songs, prayer songs etc. 	32 hrs.
REFERENCES <ul style="list-style-type: none"> ➤ Indian Folk arts and crafts (Jasleen Dhamija) ➤ Temples of North India (Krishna Deva) ➤ Temples of South India (K.R.Srinivasan) ➤ Rabindranath Tagore-Philosophy of education and painting ➤ Dictionary of Music: Pdam Aiyer ➤ Art of Indian Dance: Projesh Bamerjs ➤ Folk India set in XT Vol.; Manorama Sharma ➤ Sangeet visharad by vasant. ➤ Sangeet Ratnawali by Ashok Kumar yaman. ➤ Kramik Pustak Malika, Part-I&II by Vishnu digamber palushkar. ➤ Raag parichay, Part-I&II by Harishchandra. 		

