

**GHG KHALSA COLLEGE OF EDUCATION, GURUSAR SADHAR,
LUDHIANA**

UNIT PLANNING

(Session 2022-24)

M.Ed (Semester – I) (PAPER - I) (COURSE CODE: C01-PIE-I)

COURSE TITLE: Perspectives in Education - I

Total Marks = 100

Internal Assesment=20

External Theory= 70

Sessional work=10

TOPICS TO BE COVERED DURING THE SEMESTER

Month	Topic	Tentative lectures	Mode/ Resources
August	Unit I (a) Concept of Education	5	Lecture / Discussion/ Notes in the form of pdfs / docs shared with students through LMS/ Video related with the topic shared with students through LMS
August	Unit I (a) Principles of Education	3	Lecture & Discussion/ Notes in the form of pdf shared with students through LMS
August	Unit I (a) Assumptions of Education	3	Lecture & Discussion
September	Unit-II b) Axiological issues in education	3	Lecture through Powerpoint Presentations
September	Unit I b) Prioritizing the aims of education in the context of national values enshrined in the constitution of India	5	Lecture & discussion

September	Unit-II a) Epistemology and Education: Knowledge; methods of acquiring valid knowledge with special reference to logical analysis, positive relativism and constructivism.	9	Lecture through PPT/ Notes in the form of Powerpoint Presentations shared with students through LMS
September	Unit-III a) Sociology of Education: Concept and Theoretical Perspectives (Functionalist, Conflict & Interactionist).	7	Lecture & discussion/ Notes in the form of pdf /PPT shared with students through LMS
October	Unit-III b) Secondary School Education: Contemporary Challenge: multiple school contexts.	4	Lecture & discussion/ Notes in the form of doc shared with students through LMS
October	Unit-III c) Social Change: Concept and determinants of Social Change	6	Lecture & discussion/ Notes in the form of pdfs / docs shared with students through LMS
October	Unit-III (c) Modernization	4	Lecture & discussion
October	Unit I (a) Critical analysis of education as a discipline or area of study; connecting knowledge across disciplinary boundary.	3	Discussion in the class and Assignment

November	Unit-IV a) Education as related to social equity and equality of educational opportunities with special reference to socio-economically disadvantaged sections of society based on caste, gender, locale, income disparity and different disabilities.	6	Lecture / Discussion/ Notes in the form of pdfs / docs shared with students through LMS
November	Unit-IV b) Social Stratification; Concepts, Factors affecting; Education in relation to Social stratification with special reference to Indian Society.	7	Lecture / Discussion/ Notes in the form of pdfs / docs shared with students through LMS
December	Visit to a rural, urban (slum), alternative, innovative, secondary schools; observation of activities and preparation of a reflective diary.	4	Sessional Work and Discussion
December	Unit-IV b) Social Mobility; Concepts, Factors affecting; Education in relation to Social Mobility with special reference to Indian Society.	7	Lecture / Discussion/ Notes in the form of pdfs / docs shared with students through LMS

Class M.Ed : UNIT PLANNING
(session 2022-24)

Subject: History of Education-I (M.Ed C04-HOE-I)

Month	Unit	Topic	Method	Time Allotted	Resources
August	Unit-I Education in ancient India	a) Vedic and Buddhist period	Lecture cum discussion e-learning	4 lectures 4 lectures	History of Education by BC Rai Self developed e-module Teacher notes
August	Unit-I Education in ancient India	b) Jainism and Islamic tradition	Lecture cum discussion e-learning	3 lectures 3 lectures	History of Education by BC Rai Self developed e-module Teacher notes
September	Unit-II Education in British period	a) Study and review the impact of the following on Indian Education System: Macaulay's Minutes and its Effect, Woods Dispatch, The Education Commission (1882), The University Commission (1902), The Sargent Report(1944) b) Efforts by Indian reformers for education during British period such as Raja Ram Mohan Roy, Gopal Krishan Gokhale, Maulana Azad and Mahatama Gandhi	Lecture cum discussion Powerpoint Presentation	12 lectures 10 lectures	History of Education by BC Rai Resources from the web: pdf and Ppts Teacher notes History of Education by BC Rai Resources from the web: pdf and Ppts Teacher notes

September	Sessional Work	Critique of POA/NCF-2005/RTE/Draft of NPE 2019 NPE 2020	Discussion and Seminar	2 lectures	Documents published by Govt of India available on web
October	Unit-III A critical review of: Education in the post-Independence period	a) The University Education Commission (1948) b) Secondary Education Commission (1952) c) Indian Education Commission (Kothari Commission) (1964-66)	Lecture cum discussion Power point Presentation	10 lectures	Documents published by Govt of India available on web Contemporary Indian Education by J.S. Walia Teacher notes
October	Unit-III A critical review of: Education in the post-Independence period	d) National Policy on Education (1986 & 1992) e) Universalization of elementary education RTE Act (2009)	Lecture cum discussion Powerpoint Presentation	6 lectures	Documents published by Govt of India available on web Contemporary Indian Education by J.S. Walia Teacher notes
November	Unit-IV Trends and issues in Education	a) Dynamics of colonial and post colonial encounters and their influence on Indian education system. Education in India in the 21st century. b) Millennium Development Goal given by UNESCO	Lecture cum discussion Power point Presentation	12 lectures	Documents published by Govt of India available on web Contemporary Indian Education by J.S. Walia Teacher notes

		<p>Highlighting Education</p> <p>c) The status and challenges of existing structure of secondary school education</p> <p>d) Impact of LPG policies on Indian education</p>			
December	<p>Sessional work</p> <p>Revision</p>	<p>Book review of Education in India(Altekar,1944)/The Education Commission and After(Naik,1997)</p> <p>Whole syllabus</p>	<p>Discussion and Seminar</p> <p>Library visit</p> <p>Discussions, snap test</p>	<p>2 lectures</p> <p>8 lectures</p>	<p>Education in India(Altekar,1944)/The Education Commission and After(Naik,1997)</p>
December	FINAL PANJAB UNIVERSITY EXAMINATIONS				

COURSE CODE: C02-LLP-I

COURSE TITLE: LEARNER AND LEARNING PROCESS

Total Marks : 100 External: 70 Internal : 30

Month	Topic	Method	Time Allotted	Resources
August	Growth and Development: Concept, Difference, Principles	Lecture cum discussion	4 lectures	Learner and learning process by D. JasbirKaur. (2017)
	Cognitive Process: (Sensation, Attention, Perception, Concept formation) Piaget's Theory of Cognitive Development	Lecture cum discussion Power point Presentation	8 Lectures 4 lectures	General Psychology by Morgon and King (1993) Self- Developed e – content (Piaget)
	Development during Adolescence	Sessional Assignment		
September	Essentials of Good learning Environment	Classroom Seminar	4 lecture	Learner and learning process by D. JasbirKaur (2017)
	Coping with Diversity	Group discussion	2 lectures	Exceptional Children by Dr. S.K. Mangal

	Demands of Inclusive environment	Power point Presentation	4 lectures	Self developed E content
	Sessional Work	Laboratory Visit		
October	Multiple Ways of organizing learning	Lecture cum Discussion	4 Lectures	Educational Technology by R.A Sharma

	Cognitive and Contextual Theories (Bandura and Vygotsky)	Lecture cum discussion Power point Presentation	4 lectures	Self Developed E content (Vygotsky)
	Creativity	Classroom Seminar	4 lectures	
November & December	Strategies for Developing logical Thinking	Lecture cum discussion, Brainstorming	4 lectures	Advanced Educational Psychology by S.S Chauhan (2003)
	Social learning	Lecture cum Discussion	4 lecture	
	Sessional work	Lab Visit	8 lectures	Manuals and Questionnaires
	Addressing Classroom Aggression	Lecture cum Discussion	4lectures	Educational Psychology by Dr. J.S. Walia

Educational Research and Statistics-I (C03-ERS-I)

Month	Topic	Resources	Methodology	Lectures/ Credits
August	<p>Unit 1 :</p> <p>Meaning and steps of scientific method. Educational Research: Meaning, Need and Importance, Classification: Fundamental, Applied and Action Research.</p> <p>Unit 3</p> <p>a) Meaning and importance of statistics</p> <p>b) Measures of Central tendency</p>	<p>Best, J.W. & Kahn J.V. (1995). Research Education. New Delhi: Prentice Hall of India Pvt.</p> <p>Gill, R.S. (2021) Methodology of Educational Research & Statistics. Ludhiana: Kalyani Publishers Ltd.</p> <p>Kumar, R. (2005): Research Methodology- A step by step guide for beginners. New Delhi: Pearson Education</p>	<p>Classroom Lecture, Discussions, Notes in the form of pdfs / docs shared with students through LMS</p>	8
September	<p>Unit 1:</p> <p>Qualitative Research: Meaning, Characteristics, Merits and limitations.</p> <p>Selection of research problem, areas of research, Unit 3</p>	<p>Kaul Lokesh (1984): Methodology of Educational Research. New Delhi: Vikas Publishing House Pvt. Ltd Garrett, H.E. (1986): Statistics in Psychology and</p>	<p>Discussions, Notes in the form of print outs as well as pdfs / docs shared with students through LMS</p>	7

	Graphical representation of data: Histogram, Frequency Polygon, Ogive, pie diagram and box plot	Education. Bombay: Vakils Feiffer's and Simons Pvt. Ltd.		
October	<p>Unit 1</p> <p>Identification and statement of research problem, survey of related literature and research proposal</p> <p>Unit 3:</p> <p>Measures of Variability: Range, Average Deviation, Quartile deviation and standard deviation.</p> <p>Assignment : Calculate Mean, Median Mode for 5 Problem discussed in class</p> <p>Assignment: Prepare a Research Proposal</p>	<p>Kaul Lokesh (1984): Methodology of Educational Research. New Delhi: Vikas Publishing House Pvt. Ltd</p>	<p>Searching from Library Discussions, Notes / docs shared with students through LMS</p>	7
November	<p>Unit 2:</p> <p>Hypothesis: definition, importance,</p> <p>Types and formulation of hypothesis. Testing of hypothesis, Type-I and Type –II Errors</p> <p>Unit 4.</p>	<p>Singh Rachhpal (2020) Methodology of Educational research & Statistics</p> <p>Book by Sahu, B. K on Statistics in Education for Beginners.</p>	<p>Classroom Discussions, Problem solving Method</p>	6

	Measures of relationship: Rank Order Correlation, Product Moment method of Correlation and significance of correlation.			
December	Unit 2: Sampling: meaning and steps. Methods of sampling: Non-Probability and Probability, types of Non- Probability and Probability sampling, Unit 4 : Normal Probability Curve: Concept, Characteristics and Application	Best, J.W. & Kahn J.V. (1995). Research Education. New Delhi: Prentice Hall of India Pvt. Ltd. Kumar, R. (2005): Research Methodology- A step by step guide for beginners. New Delhi: Pearson Education	Teaching with the help of Live Examples, Discussions, shared with students through LMS; you tube links	7
December	Unit 2 Sampling Error Unit 4 Practice of Questions (Relationship and NPC)	Kaul Lokesh (1984): Methodology of Educational Research. New Delhi: Vikas Publishing House Pvt. Ltd	Classroom Lecture, Discussions, Notes in the form of pdfs / docs shared with students through LMS	7

COURSE CODE: C05-TED-I
COURSE TITLE: Teacher Education-I
Credits= 4 Total Marks= 100 External= 70
Theory Internal= (Assessment=20; Sessional work=10)
***One lecture= 40 minutes**

Month	Unit	Topic	PA	Mode of Teaching	Source
August	I(a)	Importance of Teacher Education, Teacher Educators, their roles and responsibilities.	2	Discussion followed by PPT	Own Prepared Notes (PPT/PDF)
	I(a)	Scope of Teacher Education-Preparing teachers for Secondary and Higher Education.	3	Handouts followed by discussion	Own Prepared Notes(PPT/PDF)
	II(a)	Pre-service training: Objectives and Scope.	3	Lecture & discussion	Own Prepared Notes(PPT/PDF)
	I(a)	New courses in Teacher Education.	2	Handouts followed by discussion	Own Prepared Notes(PPT/PDF)
	II(a)	Pre-service training: Objectives and Scope.	3	Lecture & discussion	Own Prepared Notes(PPT/PDF)
Sept	I(b)	Agencies regulation Teacher Education in India (NCERT: roles and responsibilities, Policy documents).	3	PDF followed by discussion	Download document form NCERT website
	I(b)	Agencies regulation Teacher Education in India (NCTE: roles and responsibilities, Policy documents).	2	PDF followed by discussion	Download document form NCTE website
	I(c)	Tracing the changes in Teacher Education in light of National Curriculum Framework, 2005	3	Handouts followed by discussion	Download document from website
	I(c)	Tracing the changes in the National Curriculum Framework for Teacher Education, 2009.	3	Handouts followed by discussion	Download document form website
	II(a)	Components of Pre-service secondary teacher education: Core and Specialization courses, practicum, internship, co-curricular activities, working with the	4	Lecture & discussion followed by B.Ed Syllabus	B.Ed Syllabus for PU Website

		community and work experience.			
Oct	II(c)	Curriculum transaction in Pre-Service secondary teacher education: Teaching methods, lecture-cum-discussion, Group discussion, Brainstorming, use of ICT, internship program.	4	Assignment	
	III(a)	Continuing Professional Development of In-Service Teachers-Concept and importance of Professional Development.	4	Lecture through PPT	e-content Development
	III (b)	Strategies of Professional Development: workshops, seminars	2	Lecture through PPT	My Blog
	III (b)	Strategies of Professional Development: symposium, panel discussions	2	Lecture through PPT	My Blog
	III (b)	Strategies of Professional Development: conferences, self-study	2	Lecture through PPT	My Blog
Nov	III (b)	Strategies of Professional Development: extension lectures, refresher courses, research colloquium.	3	Handouts followed by discussion	Own Prepared Notes(PPT/PDF)
	III (c)	Agencies for in-service education (DIET)	2	Discussion followed by PPT	Download document form website
	III (c)	Agencies for in-service education (NCTE)	2	Handouts followed by discussion	Download document form website
	III (c)	Agencies for in-service education (NCERT)	2	Handout followed by Discussion	Download document form website
Dec	III (c)	Agencies for in-service education (SCERT)	2	Discussion followed by PPT	Download document form website
	III (c)	Agencies for in-service education (Academic Staff College)	2	Lecture & discussion	Download document form website
	III (c)	Agencies for in-service education (Institutional Programmes (HRD Department) Extension	3	Discussion followed by PPT	Download document form website

		Department).			
	IV(a)	Concept of teaching as a profession,	2	Discussion followed by PPT	Own Prepared Notes(PPT/PDF)
	IV(a)	Professional ethics of teachers	1	Handout followed by Discussion	Own Prepared Notes(PPT/PDF)
	IV(a)	Teacher accountability and performance appraisal of teachers.	2	Handout followed by Discussion	Own Prepared Notes(PPT/PDF)
	III(b)	Selection, appointment of teachers and induction programmes for teachers	4	Discussion by sharing Examples	Own Prepared Notes(PPT/PDF)
	IV(c)	Assessment and Evaluation in teacher education programme.	4	Lecture through PPT	Own Prepared Notes(PPT/PDF)
		Critical Analysis of NCFTE, 2009 and 2014.		Prepare Report	
Final Examination					

M.Ed (Sem II)

COURSE CODE: C07-PED-II

COURSE TITLE: PROCESS OF EDUCATION-II

Total Marks : 100 External: 70 Internal : 30

Month	Topic	Tentative lectures	Mode/ Resources
January & February	Unit I Vision derived from synthesis of different schools of philosophy: Indian (Sankhya Philosophy)	5	Lecture / Discussion/ Notes in the form of pdfs / docs shared with students through LMS.
	Unit I Vision derived from synthesis of different schools of philosophy: Indian (Yoga Philosophy)	4	Lecture & discussion/ Notes in the form of pdf shared with students through LMS
	Unit I Vision derived from synthesis of different schools of philosophy: Indian (Vedanta Philosophy)	4	Lecture & discussion/ Notes in the form of pdf shared with students through LMS
	Unit I Vision derived from synthesis of different schools of philosophy: Western (Realism Philosophy)	5	Lecture & discussion/ Notes in the form of pdf shared with

			students
	Unit I Vision derived from synthesis of different schools of philosophy: Western (Existentialism Philosophy)	5	Lecture & discussion/ Notes in the form of pdf shared with students
<u>March</u>	Unit-II Critical analysis of educational thoughts of great thinkers: Dr. Radhakrishnan, Swami Vivekananda, J. Krishnamurthy, John Dewey, Paulo Freire, Evan Illich	10	Lecture & discussion/ Notes in the form of pdf shared with students
	Unit-III(a) Connections and interactions in the process of education-Nature of connections and interaction involved: Between the child and the environment; in linking the school practices with life outside the school; in relating subject knowledge with real life experiences of the child; between the knowledge and practices; between the content and the pedagogy; Between ICT and teaching -learning process	4	Discussion in the class and Assignment

	<p>Unit-III(b)</p> <p>Relationship of Education and Politics with special reference to Democracy and Secularism in Indian context.</p>	4	Lecture & discussion/ Notes in the form of doc shared with students through LMS
<u>April</u>	<p>Unit-IV</p> <p>(a) Process of socialization and acculturation of the child-critical appraisal of the role of school, parent, peer-group and the community.</p>	8	Lecture & discussion/ Notes in the form of pdfs / docs shared with students through LMS
<u>May</u>	<p>Unit IV (b) Economy and Education- Impact of LPG (Liberalisation, Privatization and Globalisation) on education.</p>	6	Lecture & discussion
	<p>Sessional Work :</p> <p>Reading of original texts of Rabindernath Tagore /M.K Gandhi/SriAurobindo/John Dewey /J.Krishnamurthy and writing of review of a book written by any of the above authors or any contemporary Educational thinker.</p>		Sessional work

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COURSE CODE : C08 PIS-II**COURSE TITLE: PSYCHOLOGY FOR INDIVIDUAL AND SOCIAL DEVELOPMENT****Total Marks : 100 External: 70 Internal : 30**

Month	Topic	Time Alloted	Method	Resources
January	Unit II (a)Personality: Concept, Dimensions	2lectures	Lecture cum discussion	Advanced Educational Psychology by S.K. Mangal
	Theories	6 lecture		
	b)Assessment of Personality	6 lectures		
	Sessional Work		Laboratory Visit	
February	Unit I (a)Learning: meaning and factors,	6 lectures	Lecture cum discussion	Psychology for Individual and Social Development by Dr. JasbirKaur
	Gagne's Hierarchy of Learning, Latent Learning	5 lectures	Lecture cum discussion	
	(b)Transfer of learning		Sessional Assisgnment	
	Sessional Work		Laboratory Visit	Manual and Questionnaires
March	Unit II (c)Motivation: Concept, factors	2lectures	Lecture cum discussion	Advanced Educational Psychology by S. S. Chauhan
	Mental Health	4 lectures	Group Discussion and Peer tutoring	

April	Unit II (c) Adjustment, Conflict and Defense Mechanism	6 lectures	Lecture cum Discussion	
	Unit III (a) Evolution of Intelligence	3 lectures		Advanced Educational Psychology by S.K. Mangal
	(b) Theories of Intelligence	4 lectures	Powerpoint presentation	Self Prepared E content
	(c) Emotional Intelligence	3 lectures	Lecture cum Discussion	Advanced Educational Psychology by S.K. Mangal
May	Unit IV (a) Concept of Children with Diverse needs	2 lectures	Lecture cum Discussion	Psychology for Individual and Social Development by Dr. Jasbir Kaur
	(b) Classification and Role of Teachers	1 lecture	Group Discussion	
	Unit III (c) Spiritual Intelligence	3 lectures	Lecture cum Discussion	
	Unit IV (b) Concept, Characteristics and Identification of Learning Disabled Children	8 lectures	You tube video presentations	Exceptional Children by S.K. Mangal
	(c) Inclusive Education: Concept, Process and Barriers	8 Lectures		Self prepared E content
	House Test			

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Educational Research and Statistics-II (C9-ERS-II)

Month	Topic	Resources	Methodology	Lectures/ Credits
January	<p>Unit 1 :</p> <p>a) Tools: Characteristics of a good tool, Meaning and methods of reliability and validity.</p> <p>Unit 1: b) Psychological tests, questionnaire, rating scales, attitude scale (Thurston and Likert's scale)</p> <p>Unit 3 a) Significance of Statistics (Mean Only), Significance of difference between means: Large and small, Independent and correlated</p>	<p>Mangal, S.K. Methodology of Educational research & Statistics.</p> <p>Kumar, R. (2005): Research Methodology- A step by step guide for beginners. New Delhi: Pearson Education</p>	<p>Classroom Lecture, Discussions, Notes in the form of pdfs / docs shared with students through LMS</p>	8
February	<p>Unit 1 c) Technique: observation and interview</p> <p>Unit 3:.</p> <p>b) ANOVA(one way)</p> <p>Assignment:</p>	<p>Kaul Lokesh (1984): Methodology of Educational Research. New Delhi: Vikas Publishing</p> <p>House Pvt. Ltd Garrett, H.E. (1986): Statistics in Psychology and Education. Bombay: Vakils Feiffer's and Simons Pvt. Ltd.</p>	<p>Discussions, Notes in the form of print outs as well as pdfs / docs shared with students through LMS</p>	7

March	<p>Unit 2: a) Historical Method: Meaning, Value, Difficulties, Types and steps.</p> <p>b) Descriptive Method: Meaning, Value and types.</p>	<p>Mangal, S.K. Methodology of Educational research & Statistics</p> <p>Kaul Lokesh (1984): Methodology of Educational Research. New Delhi: Vikas Publishing House Pvt. Ltd</p>	<p>Searching from Library Discussions, Notes / docs shared with students through LMS</p>	7
March	<p>Unit 2: c) Experimental Method: Meaning and purpose, Variables: Independent, Dependent, Treatment, control, Intervening, Extraneous. Essential characteristics of experiment method, Steps.</p> <p>Unit 4 : a) Phenomenology, case study, Ethnography</p>	<p>Singh Rachhpal (2020) Methodology of Educational research & Statistics</p> <p>Book by Sahu, B. K on Statistics in Education for Beginners.</p>	<p>Classroom Discussions, Problem solving Method</p>	6

April	Unit 2 d) Experimental Designs: Meaning, criteria for selecting an experimental design, Pre	Best, J.W. & Kahn J.V. (1995). Research Education. New Delhi: Prentice Hall of India Pvt.	Teaching with the help of Live Examples, Discussions, shared with students through LMS; you tube links	7
May	<p>Experimental, True Experimental, Quasi Experimental, Factorial designs. (2x2)</p> <p>e) Writing Research Report</p> <p>Unit 4 Qualitative Research</p> <p>b) Reliability and validity of qualitative research, analysis of Qualitative data</p>	<p>Ltd.</p> <p>Lambert, M. (2012): A beginners guide to doing your education research project. London: Sage Publications</p>		

COURSE CODE: E03-PLE-II
COURSE TITLE: PEDAGOGY OF LANGUAGE EDUCATION
Max Marks: 100 Marks,
External Theory: 70 marks, Internal: 30 Marks

Month, Year	Unit	Topic	Method	Time Allotted	Resources
January	I	Language acquisition and communication–factors affecting language learning and language acquisitions and communication	Lecture cum discussion through Zoom platform	21 lectures	Book written by Dr. ManjuSood and Dr. Rekha
		Linguistic, psychological and social processes involved in learning of languages	Lecture cum discussion through Zoom platform	7 lectures	Book written by Dr. ManjuSood and Dr. Rekha
		Models of Language Acquisition: Chomsky-Language Acquisition Device, Piaget-Cognitive Constructivism and Language; recent theorization: intentionality; application of these theories to development of methodologies of teaching-learning of language.	Lecture cum discussion through Zoom platform	7 lectures	Book written by Dr. ManjuSood and Dr. Rekha

February	II	Discourse Analysis: Theories of discourse analysis including speech acts, conversational maxims, conversational analysis, ethno-methodology, text analysis, and critical discourse analysis.	Lecture cum discussion through Zoom platform	6lectures	Book written by Dr. ManjuSood and Dr. Rekha
		Meta- linguistic awareness with a focus on listening, speaking, reading, comprehension at writing.	Lecture cum discussion through Zoom platform	7 lectures	Book written by Dr. ManjuSood and Dr. Rekha
March		Need and techniques (viz. differential assignments, classroom tasks, etc.) for personalized system of instruction	Lecture cum discussion through Zoom platform	7 lectures	Book written by Dr. ManjuSood and Dr. Rekha
May	III	Language learning at secondary and higher secondary stage Pedagogy of First language, Second language, Third language	Lecture cum discussion through Zoom platform	12 lectures	Book written by Dr. ManjuSood and Dr. Rekha

		Development of language curriculum and the syllabus: dimensions, factors that influence the curriculum, selection and sequencing of content, contexts, transaction and evaluation techniques	Lecture cum discussion through Zoom platform	6 lectures	Book written by Dr. ManjuSood and Dr. Rekha
April	IV	Cross linguistic influence in learning another language;	Lecture cum discussion through Zoom platform	1 lecture	Book written by Dr. ManjuSood and Dr. Rekha
		ecology of bilingual memory	Lecture cum discussion through Zoom platform	1 lecture	Book written by Dr. ManjuSood and Dr. Rekha
		Multilingual classroom	Lecture cum discussion through Zoom platform	1 lecture	Book written by Dr. ManjuSood and Dr. Rekha
		Medium of instruction– recommendation of NPE1986/1992	Lecture cum discussion through Zoom platform	3 lecture	Book written by Dr. ManjuSood and Dr. Rekha

May		Medium of instruction– recommendation of NCF-2005	Lecture cum discussion through Zoom platform	2 lecture	Book written by Dr. ManjuSood and Dr. Rekha
		Preservation of heritage language	Lecture cum discussion through Zoom platform	1 lecture	Book written by Dr. ManjuSood and Dr. Rekha
		Home language & school language	Lecture cum discussion through Zoom platform	2 lecture	Book written by Dr. ManjuSood and Dr. Rekha
		problem of tribal dialects	Lecture cum discussion through Zoom platform	1 lecture	Book written by Dr. ManjuSood and Dr. Rekha
		Problems related to evaluation of language learning	Lecture cum discussion through Zoom platform	1 lecture	Book written by Dr. ManjuSood and Dr. Rekha

P-1.1 & P-1.2

TEACHING OF MATHEMATICS EDUCATION

Max Marks: 100 Marks,

External Theory: 70 marks, Internal Practical: 30 Marks

**One lecture-40 minutes*

Month	Unit	Topic	PA	Mode of Teaching	Resource
January	I(a)	Meaning, Nature and scope of mathematics. Distinction between mathematics and Science;	2	Discussion followed by PPT	Own Prepared Notes(PDF/PPT) and Two Years Pedagogy of Mathematics (NCERT)
	I(a)	Structure of Mathematics: Pure and Applied Mathematics, Axiom Postulates, Importance, Application and Selection of Examples.	3	Lecture cum Discussion as per B.Ed Syllabus Content	Own Prepared Notes(PDF/PPT)
	I(a)	Proof/Solution of mathematics Problems-Direct proof, indirect proof, Proof by contradiction,	2	Lecture cum Discussion	Two Years Pedagogy of Mathematics (NCERT)
	I(b)	Recreational and Aesthetic aspect of mathematics: Games, Puzzles, Riddles, Symmetry etc and their role in learning mathematics.	4	Lecture cum Discussion on shared resources	Dr. SK Mangal
February	I(b)	Mathematics Club: Need and Importance, Goals, Organization and Activities.	2	Lecture cum Discussion on shared resources	Dr. SC Gakhar
	I(b)	Mathematics Laboratory: Designing and Layout, Need and Importance, Materials and Procedure to set up.	1	Lecture cum Discussion on shared resources	Dr. SC Gakhar as well as Own Prepared Notes(PDF/PPT)
	I(c)	Development of Mathematics with some famous anecdotes, Pythagoras, Aryabhata, Ramanujan.	4	Discussion method followed by Group Activity	Discussion Method followed by Student Activity to prepare sample Lesson

	I(c)	Teaching Mathematics Modeling.	2	Group Discussion	NCERT Books IX & X
	I(c)	Pedagogical Analysis of Mathematics	2	Activity Method	Dr. SK Mangal
	II(a)	Curriculum: Meaning, Principles of curriculum, Construction and Organisation.	2	Discussion followed by PPT	Dr. SC Gakhar Dr. SK Mangal
	II(b)	Curriculum Evaluation and Reform in School Mathematics Curriculum: Rationale, Objective, Principles, Learning Experiences and Materials in mathematics, Recent Curriculum reforms at National and State Levels (NCF 2009).	4	Discussion followed by PPT as well as activity to layout important reforms as per NCF 2009	Self Prepared Notes(PDF/PPT)
March	II (c)	Developing Remedial Learning experiences and teaching material to overcome special problems of students. Developing enriched programmes and materials for teaching gifted and backward students in mathematics.	2	Prepare a presentation or an assignment on the topic	Reference notes on LMS and Dr. SK Mangal
	III(a)	Approaches of Mathematics Teaching-Learning: Constructivist Approach, Competency Based Approach.	4	Lecture cum Discussion Method	Self Prepared notes and shared through LMS
	III(b)	Methods of Mathematics Teaching-Learning: Inductive and Deductive Method, Analytic Synthetic method, Computer Based Instructions and Computer Aided Learning.	5	Brainstorming session	Dr. SC Gakhar Dr. SK Mangal Dr. VK Sahu
	III (c)	Techniques of Mathematics Teaching-	5	Lecture cum discussion	Dr. SC Gakhar as well as Self

		Learning: Problem-Solving: Stages of Problem Solving Techniques to improve Problem-Solving Skills (Polya Method), Co-operative Learning (Jigsaw Method, Think Pair-Share).		followed by Handouts	Prepared notes and shared through LMS
April	IV(a)	Evaluation in Teaching Learning Process: Formative, Summative and Diagnostic.	2	Brainstorming session	Dr. SC Gakhar Dr. VK Sahu
	IV(a)	Identification and analysis of mistakes in mathematics, prevention and suggested remedial measures.	2	Activity Method	Self-Prepared notes shared on LMS
May	IV(a)	Enrichment Programmes in mathematics learning: National mathematics Talent Search, Mathematics Olympiad.	2	Lecture cum Discussion	Shared handout on LMS
	IV(b)	Types of test items in mathematics: Meaning, merits, limitations and Construction of long answer type, short answer type, very short answer type and objective type	3	Seminar Method	Own Prepared Notes(PDF/PPT) shared through LMS
	IV(b)	Construction and standardization of an achievement test in mathematics.	2	Discussion method followed Group activity	Dr. SK Mangal Self-Prepared notes
	III(b)	Action Research in Mathematics	2	Discussion followed by Handouts	Own Prepared Notes(PDF/PPT) and shared on LMS
		Any one of the following: 1. Development of lesson plan 2. Development of achievement test			

UNIT PLANNING

SEMESTER-II

COURSE CODE: E01-PSE-II

COURSE TITLE: Pedagogy of Science Education-II

Credits= 4

Session Dates: January 2023-May 2023

Total Marks = 100

External = 70

Internal= 30

1 Lecture=45 mins

Unit-I

Nature of Science

January , 2023

Summary of Unit:

- Evolution of science as a discipline, science as a dynamic and expanding body of knowledge; development of scientific knowledge;
- Science and technology, correlation between science and technology & other branches.
- Common misconceptions of pupils about the nature of science; characteristics of different disciplines of science and their interrelationship.

(6 lectures)

After completing the course, the prospective teacher educators will be able to:

- explain the nature of science as a dynamic, expanding body of knowledge and as a social endeavor;
- explain the difference and complementarity between Science and Technology;

Resources:

- Kaur. R. (2007). Teaching of Science. Patiala: Twenty first century publications.
- Kohli V.K. (2003). How to teach science. Ambala: Vivek publishers.
- Kulshreshtha S.P. (2009). Teaching of Science. Meerut: VinayRakheja publications.
- PPTs and Pdf s of the various topics (on MOODLE).

Unit-I

Lesson 1 Title Nature of Science a) Evolution of science as a discipline, science as a dynamic and expanding body of knowledge; development of scientific knowledge.

Time -2 lectures

Lesson 2 Title b) Science and technology, correlation between science and technology & other branches.

Time -2 lectures

Lesson 3 Title c) Common misconceptions of pupils about the nature of science; characteristics of different disciplines of science and their interrelationship.

Time -2 lectures

Assignment and Activities: Impact of Science and technology (*Seminar Submissions*)

Evaluation: Evolution of science as a discipline, science as a dynamic and expanding body of knowledge; development of scientific knowledge. (*Submissions*)

Unit-II(11 lectures)

Feb 2023- March 2023

Summary of Unit:Curriculum of Science Education

- **Trends in science curriculum, considerations in developing learner centred curriculum in science.**
- **Criteria of validity of science curriculum: content, ethical, environmental, process, cognitive, historical**
- **Analysis of science curriculum at secondary stage.**

(11 lectures)

Objectives: After completion of the course, the prospective teacher educators will be able to

- understand the need to evaluate curricula and evaluate the same on the basis of different validities;
- know about and critically study innovative curricular efforts in India and abroad;

Resources:

- Kaur. R. (2007). Teaching of Science. Patiala: Twenty first century publications.
- Kohli V.K. (2003). How to teach science. Ambala: Vivek publishers.
- Kulshreshtha S.P. (2009). Teaching of Science. Meerut: VinayRakheja publications.
- PPTs and Pdf s of the various topics (on MOODLE).

Unit-II

Curriculum of Science Education (11 lectures)

Lesson 1 Title a) Trends in science curriculum, considerations in developing learner centred curriculum in science.

(3 lectures)

Lesson 2 Title b) Criteria of validity of science curriculum: content, ethical, environmental, process, cognitive, historical

(6 lectures)

Lesson 3 Title c) Analysis of science curriculum at secondary stage.

(2 lectures)

Assignment and Activities-Analysis of science curriculum at secondary stage.

(Submission)

Evaluation: Compare the Criteria of validity of science curriculum: content, ethical, environmental, process, cognitive, historical. (*Submission*)

Unit-III(24 lectures)

April 2023-May 2023

Summary of Unit:Approaches to Teaching-Learning of Science

- **Constructivist paradigm and its implications for science learning**
- **Constructivist approaches to science learning: inquiry method, problem solving strategies, guided discovery approach; inducto-deductive method, project based learning, cooperative collaborative learning.**

- **Role of experiments in science, development of laboratory design, planning and organisation of laboratory work, improvisation in the laboratory and low cost science experiments**
- **Metacognitive strategies-giving space to pupils to think, organize their knowledge and express teacher as a reflective practitioner.**
- **Use of ICT in teaching-learning of science concepts at secondary level.**

(24 lectures)

Objectives: After completion of the course, the prospective teacher educators will be able to

- understand diversity of instructional materials, their role and the need for contextualization in science education;
- appreciate the role of co-curricular activities in science education;
- explain the constructivist approach to science instruction;

Resources:

- Kaur. R. (2007). Teaching of Science. Patiala: Twenty first century publications.
- Kohli V.K. (2003). How to teach science. Ambala: Vivek publishers.
- Kulshreshtha S.P. (2009). Teaching of Science. Meerut: VinayRakheja publications.
- PPTs and Pdf s of the various topics (on MOODLE).

Unit-III

(24 lectures)

Approaches to Teaching-Learning of Science

Lesson 1 Title a) Constructivist paradigm and its implications for science learning

(3 lectures)

Lesson 2 Title b) Constructivist approaches to science learning: inquiry method, problem solving strategies guided discovery approach; inducto-deductive method, project based learning, cooperative collaborative learning.

(10 lectures)

Lesson 3 Title c) Role of experiments in science, development of laboratory design, planning and organisation of laboratory work, improvisation in the laboratory and low cost science experiments

(6 lectures)

Lesson 4 Title d) Metacognitive strategies-giving space to pupils to think, organize their knowledge and express the teacher as a reflective practitioner.

(3 lectures)

Lesson 5 Title e) Use of ICT in teaching-learning of science concepts at secondary level.

(2 lectures)

Assignment and Activities-Use of ICT in teaching-learning of science concepts at secondary level (*Submission*)

Evaluation: Constructivist approaches to science learning: inquiry method, problem solving strategies guided discovery approach; inducto-deductive method, project based learning, cooperative collaborative learning (*Submission*)

Unit-IV(10 lectures)

May 2023

Evaluation Assessment and Contemporary Issues in Science Education

Summary of Unit:

- **Evaluation in science: Formative and summative**
- **Self-assessment by students and by teachers, peer assessment, assessment of teachers by students.**
- **Contribution of Indian scientists**
- **Scientific and technological literacy**
- **Innovations and creativity in science.**

(10 lectures)

Objectives: After completion of the course, the prospective teacher educators will be able to

- understand the role of assessment in the teaching –learning process in science
- familiarize with innovative trends in assessment;
- analyze issues in Science education pertaining to equity and access, gender, special groups and ethical aspects.

Resources:

- Kaur. R. (2007). Teaching of Science. Patiala: Twenty first century publications.
- Kohli V.K. (2003). How to teach science. Ambala: Vivek publishers.
- Kulshreshtha S.P. (2009). Teaching of Science. Meerut: VinayRakheja publications.
- PPTs and Pdf s of the various topics (on MOODLE).

Unit-IV

Evaluation Assessment and Contemporary Issues in Science Education

Lesson 1 Title a) Evaluation in science: Formative and summative

(2 lectures)

Lesson 2 Title b) Self-assessment by students and by teachers, peer assessment, assessment of teachers by students.

(2 lectures)

Lesson 3 Title c) Contribution of Indian scientists

(2 lectures)

Lesson 4 Title d) Scientific and technological literacy

(2 lectures)

Lesson 4 Title e) Innovations and creativity in science.

(2

lectures)

Assignment and Activities-Contribution of Indian scientists.(*Submission*)

Evaluation: Self-assessment by students and by teachers, peer assessment, assessment of teachers by students. (*Submission*)

Sessional work:

- *Development of lesson plan*
- *Development of an achievement test . (To be submitted by April 2022)*

Evaluation Scheme:

- Examiner will set 9 questions, two from each unit and one question (Question No.9) covering the entire syllabus will consist of four short answer type questions.
- Students are required to attempt five questions in all, selecting one question from each unit and Question No.9 which is compulsory.

SEMESTER-III PROGRAM CODE: MEDGN-III

PAPER-I

COURSE CODE: C12-ESD-III

COURSE TITLE: Education for Sustainable Development & Global Peace-III

**Credits= 4 Total Marks= 100 External= 70 Theory Internal=
(Assessment=20; Sessional work=10)**

COURSE OBJECTIVES

On completion of this course, students will be able to:

- explain concepts concerning various aspects of the Educational for sustainable development.
- explain the concept of world peace and role of education • recognize dependence of human life on the environment.
- identify local and region specific environmental problems.
- understand the role of individuals, society, the government, ICT and media in protection, preservation and conservation of environment.
- develop awareness about rules, regulations and legal provisions for protection, preservation and conservation of the environment.
- develop awareness, desirable skills and appreciation for the protection, preservation and conservation of the environment.
- Understand the role of school and teacher in creating awareness among students about the need for sustainable development.

UNIT-1: Education for Sustainable Development:

S.No.	Topics	Mode/ Resources	Month	Tentative lectures
1.	a) Meaning nature and scope of Sustainable Development; concept of global peace	Classroom Lecture, Discussions, Notes in the form of pdfs / docs shared with students through LMS	August	08
2.	b) Education for Sustainable Development: Approaches & Strategies c) Education for global peace	Lecture cum discussion, Powerpoint Presentations, Videos related with the topics concerned, Notes in the form of pdfs / docs shared with students through LMS	August	06
3.	d) Integration of global peace and environmental concerns in school curriculum. e) Role of teacher in promoting sustainable development.	Classroom Lectures, Brainstorming sessions, Notes in the form of pdfs / docs shared with students through LMS	August	06
UNIT-2: Conservation of Natural Resources, Culture of Peace and Human Rights				
4.	a)Conservation of Natural Resources: Environmental conservation in the globalized world;	Classroom Presentations by Students, Notes in the form of pdfs / docs shared with students through LMS	September	10

	Deforestation in the context of tribal life, Role of individual in conservation of natural resources: water, energy and food			
5.	b) Culture of Peace and Human Rights: Ideas of thinkers like Mahatma Gandhi, Martin Luther King, Role of Educational institutions and teachers in developing a culture of peace.	Classroom Lectures, Discussions, Notes in the form of pdfs / docs shared with students through LMS, Powerpoint Presentations	September	6
UNIT-3: Individual, Society, Government, ICT and Media in Environmental Education:				
6.	Literacy, democracy, human rights and universal values-contribution to global peace and sustainable development	Classroom Lectures, Discussions, Debates, Notes in the form of pdfs / docs shared with students through LMS, Powerpoint Presentations	October	07
7.	b) Role of individual, school and community for prevention of pollution, management of natural resources; Responsible Environment Behavior (REB).	Classroom Discussion, Powerpoint Presentations, Videos related with the topics, Notes in the form of pdfs / docs shared with students through LMS	October	09
8.	c) Role of ICT, text books and media in creating awareness about human rights; environmental and peace values.	Assignment/Discussion, Notes in the form of pdfs / docs shared with students through LMS	November	06
UNIT-4: Competencies in teachers for Education for Sustainable Development:				
9.	ESD model for competencies in teachers: Knowledge, system, thinking, emotions and values in teachers for educating students for Sustainable Development	Classroom lectures, Notes in the form of pdfs / docs shared with students through LMS	December	09
10.	b) Individual life style; Carbon foot printing	Classroom Discussion, Powerpoint Presentations, Videos related with the topics, Notes in the form of pdfs / docs shared with students through LMS	December	07

Note :

- **Midterm Exams will be conducted in the month of November.**
- **Revision work will be done in the month of December**

SESSIONAL WORK (INTERNAL) 10 MARKS

Case study on children rights for education in context of Kailash Satyarthi ,Malala Yousafazi.

EVALUATION SCHEME

Examiner will set 9 questions, two from each unit and one question (Question No.9) covering the entire syllabus will consist of four short answer type questions. Students are required to attempt five questions in all, selecting one question from each unit and Question No. 9 which is compulsory. All questions carry equal marks (long answer -14 marks each and short questions-3.5 marks each). Duration of external examination will be three hours.

SUGGESTED READINGS:

1. Agarwal, A., Narain, S. and Sen, S. (1999). The Citizens Fifth Report. Part II-Sustainable Database. New Delhi, Centre for Science and Environment.
2. Braidotti, R., Charkiewicz, E., Hausler, S and Wieringa, S. (1994). Women, the environment, and sustainable development: Toward a theoretical synthesis. London: Zed Books.
3. Chhokar, K. B. (2000). Conserving Biodiversity. New Delhi, Oxford and IBH publishing Co. Pvt. Ltd.
4. Cortese, A. (1999). Education for sustainability: The University as a model of sustainability. Boston, MA: Second Nature, Inc.
5. Cortese, A. (2001). Education for a sustainable future: The next industrial revolution. Boston, MA: Second Nature, Inc.
6. UNESCO's Report on Education for Sustainable Development, Paris, UNESCO.
7. Ministry of Law and Justice, Right to Education Act (2009), Govt. of India, New Delhi.
8. http://www.unece.org/fileadmin/DAM/env/esd/inf.meeting.docs/EGonInd/8mtg/CSCT%20Handbook_Extract.pdf (ESD Model).

PAPER: II
COURSE CODE: C13-GNC-III
COURSE TITLE: Guidance and Counselling-III
Credits = 4

UNIT PLANNING (2022-24)

Session Dates: August2023-December2023

Total Marks = 100

External = 70

Internal= 30

1 Lecture=45 mins

Unit Name: Unit-I: Introduction

August2023-September 2023

Summary of Unit:

- **Meaning, Nature, Aims, Principles, Need and Scope of Guidance.**
- **Meaning, Nature, Aims, Principles, Need and Scope of Counselling, Counselling skills such as Establishing rapport, empathy and Listening**
- **Evaluating Guidance Programme with special reference to Counselling.**

(18 lectures)

Objectives: After completion of the course, the prospective teacher educators will be able to

- Understand the meaning, nature, aims, need and scope of guidance.
- Understand the meaning, nature, aims, need and scope of counselling.
- Recognize the role of guidance in attaining the goals of education.
- Develop Counselling skills viz Establishing rapport, empathy and Listening
- Evaluate and equip themselves with relevant Guidance programmes at different levels of school education and higher education.

Resources: Guidance And Counselling by Sodhi,Suri; Aggarwal,JC, PPTs and Pdf s of the various topics (on MOODLE).

Lesson 1 Title: a) Meaning, Nature, Aims, Principles, Need and Scope of Guidance.

Time -6 lectures

Lesson 2 Title b) Meaning, Nature, Aims, Principles, Need and Scope of Counselling, Counselling skills such as Establishing rapport, empathy and Listening.

Time -9 lectures

Lesson 3 Title: Evaluating Guidance Programme with special reference to Counselling.

Time -3 lectures

Assignment and Activities: Counselling skills such as Establishing rapport, empathy and Listening. (*Seminar Submissions*)

Evaluation: Evaluating Guidance Programme with special reference to Counselling. (*Submissions*)

Unit Name: Unit-II: Understanding Guidance and Counselling (10 lectures)

September 2023-October 2023

Summary of Unit:

- **Group Guidance: Meaning, Objectives, Advantages and Limitations of Group Guidance.**
- **Group Guidance Techniques: Class Talk, Career Talk, Orientation Talk, Group Discussion, Career Conference, Career Corner, Bulletin Board, Role Playing.**
- **Recent trends in Guidance and Counselling.**

(20 lectures)

Objectives: After completion of the course, the prospective teacher educators will be able to

- Understand the meaning, objectives, and advantages of group guidance.
- Develop the acquaintance with various techniques of group guidance.
- Apply and implement various techniques of group guidance.
- Develop insight of Recent trends in Guidance and Counselling.

Resources: Guidance And Counselling by Sodhi,Suri; Aggarwal,JC, PPTs and Pdf s of the various topics (on MOODLE).

Lesson 1 Title: a) Group Guidance: Meaning, Objectives, Advantages and Limitations of Group Guidance

Time -6 lectures

Lesson 2 Title b) Group Guidance Techniques: Class Talk, Career Talk, Orientation Talk, Group Discussion, Career Conference, Career Corner, Bulletin Board, Role Playing.

Time -10 lectures

Lesson 3 c) Recent trends in Guidance and Counselling.

Time- 4 lectures

Assignment and Activities-Prepare a presentation or an assignment on Recent trends in Guidance and Counselling. (*Submission*)

Evaluation: Presentation on Group Guidance Techniques: Any two in detail (*Submission*)

Unit Name: Unit- III: Theories/ Therapies of Counselling

(14 lectures)

November 2023-December 2023

Summary of Unit:

- **Behaviouristic**
- **Rational Emotive**
- **Reality.**

Objectives: After completion of the course, the prospective teacher educators will be able to

- Comprehend and conceptualise the theories of Counselling.
- Understand the need, importance & relevance of various therapies of Counselling

Resources: Psychology Books ,PPTs and Pdf s of the various topics (on MOODLE).

Lesson 1 Title: a) Behaviouristic

Time-6 lectures

Lesson 2 Title b) Rational Emotive

Time -4 lectures

Lesson 3 Title:c) Reality..

Time -4 lectures

Assignment and Activities-Therapies of Counselling

Evaluation: Therapies of Counselling (*Seminar*)

Unit Name: Unit-IV Student Appraisal.(14 lectures)

Dec 2023

Summary of Unit:

- **Quantitative Assessment: Concept and assessment of Interest, Intelligence, Personality and Aptitude.**
- **Tools for Qualitative Assessment: Interview, Observation, Case Study, Sociometry.**

Objectives: After completion of the course, the prospective teacher educators will be able to

- Understand the qualitative and quantitative appraisal of students.
- Develop knowledge and understanding of the major psychological concepts such as intelligence, aptitude, personality, interest and their assessment for providing guidance.
- Gain insight about Qualitative and Quantitative tools of Assessment.

Resources: Psychological Testing Books, Research and Statistics books.

Lesson 1 Title: a) Quantitative Assessment: Concept and assessment of Interest, Intelligence, Personality and Aptitude.

Time - 8 lectures

Lesson 2 Title b) Tools for Qualitative Assessment: Interview, Observation, Case Study, Sociometry

Time -6 lectures

Unit Name: PRACTICAL

a) Administration and Interpretation of psychological tests:

- **Interest Inventory**
- **DAT/DBDA - *Time -5 lectures***

b) Preparation and presentation of Career Talk and /or Career exhibition -

Time -3 lectures

c) Report of visit to employment exchange - *Time -1 lecture*

d) Viva- voce

Objectives: After completion of the course, the prospective teacher educators will be able to

- Develop the skill of administration and interpretation of psychological assessment.
- Visit an employment exchange
- Prepare and present Career Talk in an internship school.

Evaluation: Final Submissions at the end of semester..

References:

- Aggarwal, J.C(1960) Educational and Vocational Guidance and Counselling. Doaba House,
- Anastasi, A. & Urbina, S. (1997). Psychological Testing, 7th Ed., Upper Saddle River. NJ: Prentice Hall.
- Shertzer, B. & Stone, S.G. (1980). Fundamentals of Guidance. Boston, USA: Houghton Mifflin Co.
- Shertzer, B. & Stone, S.G. (1968). Fundamentals of Counselling. Boston, USA: Houghton Mifflin Co.
- Suri,S.P,Sodhi,T.S. (1997). Guidance and Counselling. Patiala: Bawa Pub.

Evaluation Scheme:

- The external theory examination will be of three hours duration.
- External question paper will have V units.
- First four units i.e. Unit-I, II, III, IV will have two questions each and the candidate will be required to attempt one question from each of the Unit-I to IV.
- Each question carries 14 marks.
- Unit –V will be compulsory with 4 short answer-type questions set from the whole syllabus of the paper. Each question will be of 3.5 marks.

M.Ed 2nd Year (Sem III)

Session 2022-24

COURSE TITLE: Measurement, Assessment and Evaluation-III

Credits= 4 Total Marks= 100 External= 70

Theory Internal= (Assessment=20; Sessional work=10)

***One lecture= 40 minutes**

Month	Unit	Topic	PA	Mode of Teaching	Source
August	IV(a)	Correlations: Assumptions and computation of: Biserial and Point Biserial	5	Practice of related problems followed by Notes	Own Prepared Notes (PDF) and YouTube video link through LMS and extra questions for Practice
	I(a)	Concept and importance of measurement and evaluation.	3	Handouts followed by discussion	Own Prepared Notes (PDF) Through LMS
	IV(b)	Correlations: Assumptions and computation of: Tetrachoric and phi-coefficient.	6	Practice of related problems followed by Notes	Own Prepared Notes (PDF) and YouTube video link through LMS and extra questions for Practice
September	I(b)	Types of evaluation: Formative and summative.	3	Lecture & discussion	Own Prepared Notes(PPT) Through LMS
	III(a)	Analysis of variance (two way)	8	Practice of related problems followed by Notes	Own Prepared Notes(PPT) Through LMS and extra questions for Practice
	I(c)	Scales of Psychological measurement: Nominal, Ordinal, Interval and Ratio.	4	PDF followed by discussion	Own Prepared Notes (PDF)
	II(a)	Types of achievement tests- Essay, short answer, Objective type.	1	Assignment Submission Through LMS	Supporting material provided
	III(b)	Non parametric tests: Chi square	7	Practice of related problems followed by Notes	Own Prepared Notes (PDF) through LMS and extra questions for Practice
October-	III(b)	Non parametric tests:	4	Practice of	Own Prepared Notes

November		Mann-Whitney test		related problems followed by Notes	(PDF) through LMS and extra questions for Practice
	III (b)	Non parametric tests: Wilcoxon signed rank test	4	Practice related problems followed by Notes	Sharma, R.A. Book
	IV (c)	Correlations: Assumptions and computation of: Partial and multiple correlation.	9	Practice related problems followed by Notes	Own Prepared Notes (PDF) through LMS and extra questions for Practice
	II (c)	Steps in standardization of achievement tests.	4	PDF followed by discussion	Own Prepared Notes (PDF)
	II (c)	Item analysis: Item difficulty, discrimination index. Estimating reliability and validity. Effectiveness of distractors.	4	Discussion followed by PPT	Own Prepared Notes (PDF)
December	II(b)	Norm referenced and criterion referenced tests	3	Lecture followed by discussion	Own Prepared Notes (PDF) and YouTube video link through LMS
	III (c)	Regression and prediction: Meaning and Concept of linear regression equation.	9	Handouts followed by discussion	Own Prepared Notes(PPT/PDF)
	II(b)	Projective and objective tests	3	PDF followed by discussion	Own Prepared Notes (PDF)
		Sessional Work: Development of a standardized test		Submit Through LMS	
Final Examination					

Books

- Garrett, H.E. (1973). Statistics in Education and Psychology. Bombay: Vakils Febber and Simons.
- Kothari, C.R. (2019). Research Methodology: Methods and Technology. New Age International (P) Limited Publisher
- Koul, L. (2020). Methodology of Educational Research. Chandigarh: Lall Book Depot
- Sahu, B.K. (2014). Statistics in Psychology & Education. New Delhi: Kalayni Publishers
- Sharma, R.A. (2004). Advanced Statistics in Education and Psychology. Meerut: Lall Book Depot.

M.Ed 2nd Year (Sem III)
Session 2022-24

COURSE CODE: C15

COURSE TITLE: Educational Management, Policy Planning -III

Credits= 4 Total Marks= 100 External= 70

Theory Internal= (Assessment=20; Sessional work=10)

COURSE OBJECTIVES:

After completing the course, students will be able to:

- **explain the process of policy formulation**
- **critically analyze the determinants of educational policy**
- **explain the principles, methods and approaches of educational planning**
- **explain types, approaches and agencies for performance appraisal**
- **explain structure of educational organization**
- **explain various aspects of organizational climate**
- **discuss processes of educational management**
- **describe issues in organizational development and change**
- **explain meaning, nature scope types and traits of leadership**

Month	Topic	Method	Time allotted	Resources
August	Educational Management: Concept, Scope and Principles	Lecture cum discussion	4 lectures	Educational Administration and Supervision Aggarwal & Bhatnagar (2002)
	Organizational Climate	Power point Presentation	3 lectures	
September	Process in Educational organization: Communication, Decision Making	Lecture cum Discussion	3 lectures	Educational Administration and Management by S.S. Mathur (1978)

	Appraisal, Management by objectives	Lecture cum discussion	3 lectures	
October	Organizational Development: concept, process and Interventions	Class room Seminar	4 lectures	Educational Administration and Supervision Aggarwal & Bhatnagar (2002)
	Organizational Change: Concept, issues and strategies	Sessional Assignment		
	Educational Planning(Methods, techniques principles and Priorities)	Lecture Method	8 lectures	Supervision, Planning and Financing by Agarwal and Bhatnagar (1997)
November	Approaches to educational planning	Power point Presentation	4 lectures	Self developed e-content
	Overview of Educational Planning		4 lectures	
	Educational Leadership: Types and Styles, Traits and skills	Lecture cum discussion	4 lectures	Educational Administration, Supervision and School Management by Mohanty (2005)
December	Need and Importance of Educational policy	Group discussion	4 lectures	
	Process of policy Formulation	Lecture cum discussion	4 lectures	
	Determinants of Educational Policy	PowerPoint Presentation	4 lectures	Self developed e-content

Sessional work: (To be submitted in the Month of December)

The students may undertake any one of the following activities:

- Preparation of questionnaire/ interview schedule for micro level educational survey
- Case study of administrative problems in implementation of RTE in government school/private school
- Assessment of motivation level/ job satisfaction/ perception of leadership among teachers in any educational institution

SUGGESTED READINGS

1. Aggarwal, J. C., & Agrawal, S. P. (1992). Educational planning in India: With a slant to educational financing and administration. New Delhi: Concept Pub. Co.
2. Bottery Mike (ed.) (1992). Education, Policy & Ethics. London: Continuum.
3. Dennison, W. F. (1984). Educational finance and resources. London: Croom Helm.
4. Guthrie, J. W., & Reed, R. J. (1991). Educational administration and policy: Effective leadership for American education (2nd ed.). Boston: Allyn and Bacon.
5. Hough J.R. (1990). Education, Policy-An International Survey. London: Croom Helm.
6. Mukherji, S.N.(1970). Administration and Educational Planning and Finance. Baroda : Acharya Book Depot.

M.Ed SEMESTER IV

COURSE CODE: C17-EDT-IV

COURSE TITLE: EDUCATIONAL TECHNOLOGY AND ICT-IV

Total Marks = 100 External = 70 Internal= 30

Month	Unit	Topic	Method	Time Allotted	Resources
January	UNIT- I	Educational Technology: Concept, Nature and scope of educational technology in India	Lecture cum discussion	5lectures	Educational Technology by Dr. J.S.Walia Educational Technology by R.A. Sharma Educational Technology by AnandBhushan&MalwinderAhuja
		Historical perspective of Educational Technology. Types of Educational Technology	Lecture cum discussion	4 Lectures	Educational Technology by AnandBhushan&MalwinderAhuja
February		Recent trends in educational Technology. Major institutions of educational Technology in India: CIET, EMRC, CEC.	Lecture cum discussion	6 Lectures	Online sources Educational Technology by S.K Mangal
	UNIT-II	Teaching:Concept, variables, phases and levels of teaching.	Lecture cum discussion	8 lectures	Techniques of Teaching By K.K. Bhatia Educational Technology By J.S. Walia

		Models of Teaching: Basic teaching model, Concept Attainment model and Advance Organizer Model.	Lecture cum demonstration & hands on	10 Lectures	Educational Technology by Dr. J.S.Walia Educational Technology by S.K Mangal
March		Teacher Training Techniques: Microteaching, Teaching skills, Skill of stimulus variation, introducing the lesson, reinforcement and probing question.	Lecture cum demonstration & hands on	10 Lectures	Micro Teaching- B.K. Passi Self developed E content
		Flanders Interaction Analysis.	Lecture cum demonstration & hands on	4 lectures	Educational Technology by Dr. J.S.Walia Educational Technology by AnandBhushan&MalwinderAhuja
April	UNIT - III	Programmed Instruction: Concept, theoretical rationale, principle and styles of programmed instruction.	Lecture cum discussion	8 lectures	Educational Technology by Dr. J.S.Walia Educational Technology by AnandBhushan&MalwinderAhuja
	Sessional Work	Development of a linear programme. (50 frames)	Lecture & practicals	4 lectures	Educational Technology by Dr. J.S.Walia Educational Technology by AnandBhushan&MalwinderAhuja

	UNIT - III	Print and electronic media in education: concept, Characteristics, selection of media.EDUSAT. Media in Distance Education, MOOCS	Lecture discussion Project	6 lectures	Educational Technology by AnandBhushan&MalwinderAhuja Educational Technology By Venkataiah
May	UNIT - IV	Communication: Concept of communication, process, principles and barriers of communication.	Lecture discussion Lecture cum Discussion Seminar-Power point Presentation for sessional work	3 Lectures	Educational Technology By K.L. Kumar Educational Technology by Dr. J.S.Walia
		Information and Communication Technology(ICT): concept, need,advantages and barriers to expansion of Information and Communication Technology.	Lecture cum Discussion Seminar-Power point Presentation for sessional work	4 Lectures	Educational Technology by S.K Mangal Educational Technology by Dr. J.S.Walia
		Computer assisted instruction, e-learning, online learning and m-learning.	Lecture cum Discussion Seminar-Power point Presentation for sessional work	10 lectures	Educational Technology by S.K Mangal Educational Technology by Dr. J.S.Walia Online sources

COURSE TITLE: Education for differently abled
Credits= 4 Total Marks= 100 External= 70
Theory Internal= (Assessment=20; Sessional work=10)
***One lecture= 40 minutes**

Month	Unit	Topic	PA	Mode of Teaching	Source
January	I(a)	Concept of Inclusive Education and Models of Implementation.	3	Discussion followed by PPT	Own Prepared Notes (PDF)
	I(a)	Barriers of Inclusive Education.	2	Handouts followed by discussion	Inclusion Education Book by Kalayni Pub
	I(b)	Difference between Special Education, Integrated and Inclusive Education.	2	Handouts followed by discussion	My Blog
	II(b)	Advantages of Inclusive Education for Individual and Society.	2	Lecture & discussion	Own Prepared Notes(PDF) through LMS
	I(c)	Current laws(RCI Act, PWD Act, National Trust Act, RTE); National Policy for the Disabled (2006) and agreements supporting Inclusive Education (examples);	6	PDF followed by discussion	Own Prepared Notes(PDF) through LMS
February	I(c)	Recommendations of various education commissions to respond to diversity in education situations.	2	PDF followed by discussion	Prepare with students as per previous content
	II(a)	Definition, Characteristics and Educational Implications for Children with Hearing and Visual Impairments	2	Handouts followed by Video link shared on LMS	Own Prepared Notes (PPT/PDF)
March	II(a)	Definition, Characteristics and Educational Implications for Intellectually Challenged	2	Handouts followed by Video link shared on LMS	Own Prepared Notes (PPT/PDF)
	II(a)	Definition, Characteristics and Educational	2	Handouts followed by	Own Prepared Notes (PPT/PDF)

		Implications for Locomotionally Challenged		Video link shared on LMS	through LMS
	II(a)	Definition, Characteristics and Educational Implications for Children with Autism,	2	Handouts followed by Video link shared on LMS	Own Prepared Notes (PPT/PDF) through LMS
	II(a)	Definition, Characteristics and Educational Implications for Cerebral Palsy.	2	Lecture through PPT	e-content Development
April	II (a)	Definition, Characteristics and Educational Implications for Learning Disabilities	2	Lecture through PPT	Special Education Book by Vinod Kumar Sahu
	II(a)	Definition, Characteristics and Educational Implications for Linguistic Minorities	2	Lecture Method	Own Prepared Notes(PPT/PDF)
	II (a)	Definition, Characteristics and Educational Implications for Slow Learners, Gifted and Creative.	2	Discussion as per content	Special Education Book by Vinod Kumar Sahu
	II(b)	Importance of early detection, functional assessment and early intervention for development of compensatory skills.	3	Assignment	as discussed in Unit II Part a
	III (a)	Concept and need for curricular adaptations for children with diverse needs	2	Discussion followed by PPT	Own Prepared Notes(PPT/PDF)
	III (b)	Role of Technology for meeting diverse needs of learners	2	Handouts followed by Video link shared on LMS	Own Prepared Notes (PPT/PDF) through LMS
	III (d)	Sources required for Children with special needs: Human, Financial and Physical	2	Handouts followed by Video link shared on LMS	Own Prepared Notes(PPT/PDF)
May	III (e)	Adaptations in instructional objectives, co-curricular and curricular activities for children with diverse needs	2	Discussion followed by PPT	Own Prepared Notes (PPT/PDF) through LMS

	IV (a)	Guidelines for adaptation for teaching/practicing Science, Mathematics, Social Studies, Languages, Yoga, Physical Education, Drama etc	2	Lecture & discussion	Own Prepared Notes(PPT/PDF)
	IV (b)	NCF 2005 and Curriculum for Teacher Preparation and Transaction Modes	3	Discussion followed by PPT	Download document from website
	IV(c)	Skills and Competence of teacher and teacher educators for secondary education in inclusive settings	2	Discussion followed by PPT	Own Prepared Notes(PPT/PDF)
	IV(d)	Multicultural	1	Discussion followed by PPT	Own Prepared Notes(PPT/PDF)
	IV(d)	Multigrade Teaching	2	Discussion followed by PPT	Own Prepared Notes (PPT/PDF) through LMS
		<ol style="list-style-type: none"> 1. Assessment / Identification test (of any of the following- Learning Disability and Slow Learner, Attention Deficit Hyperactivity Disorder) 2. Report on Visit to a Special School 3. Curricular adaptations for any disability. 	4	Perform test	Prepared file and submit

COURSE CODE: E07-CME-1V

COURSE TITLE: Comparative Education-IV

Credits = 4

UNIT PLANNING (2022-24)

Session Dates: January to May

Total Marks = 100

External = 70

Internal= 30

1 Lecture=45 mins

Unit-I

January , 2024

Summary of Unit:

- **Meaning, History, Purposes, Methods, importance and limitations of comparative education.**
- **Factors influencing the educational systems of a country-political, social, linguistics,geographical and economic.**

(12 lectures)

After completing the course, the prospective teacher educators will be able to:

- explain the concept, history and purposes of comparative education.
- explain the importance and limitations of comparative education
- explain the factors influencing the educational system of a country.

Resources: Sodhi, T.S., (1983): A Text Book of Comparative Education, New Delhi: Vikas Publishing House Pvt. Ltd.

Sharma, R.N. (2008): Comparative Education, New Delhi: Surjeet Publications

Sharma, Y.K. (2004): Comparative Education – A Comparative Study of Educational 66 Systems, New Delhi: Kanishka Publishers

PPTs and Pdf s of the various topics (on MOODLE).

Lesson 1 Title: a) Meaning, History, Purposes, Methods, importance and limitations of comparative education.

Time -4 lectures

Lesson 2 Title b) Factors influencing the educational systems of a country-political, social, linguistics, geographical and economic.

Time -8 lectures

Assignment and Activities: Importance and limitations of comparative education.

(Seminar Submissions)

Evaluation: Factors influencing the educational systems of a country(*Submissions*)

Unit-II(18 lectures)

Feb2024-March 2024

Summary of Unit:

- **Educational ladder of U.K., Finland and India, Administrative agencies for education**
- **Compare the salient features of educational system (aims, curriculum, and evaluation) of U.K, Finland and India.**

(18 lectures)

Objectives: After completion of the course, the prospective teacher educators will be able to

- explain the educational ladder of U.K., Finland and India.
- compare the salient features of educational system of U.K., Finland and India.

Resources: Sodhi, T.S., (1983): A Text Book of Comparative Education, New Delhi: Vikas Publishing House Pvt. Ltd.

Sharma, R.N. (2008): Comparative Education, New Delhi: Surjeet Publications

Sharma, Y.K. (2004): Comparative Education – A Comparative Study of Educational 66 Systems, New Delhi: Kanishka Publishers

PPTs and Pdf s of the various topics (on MOODLE).

Unit-II

Lesson 1 Title:a) Educational ladder of U.K., Finland and India, Administrative agencies for education

(8 lectures)

Lesson 2 Title:b) Compare the salient features of educational system (aims, curriculum, and evaluation) of U.K, Finland and India.

(10 lectures)

Assignment and Activities-Prepare an Educational ladder of U.K.,Finland and India

(Submission)

Evaluation: Compare the salient features of educational system (aims, curriculum, and evaluation) of U.K, and India. *(Submission)*

Unit-III(14 lectures)

March 2024-April 2024

Summary of Unit:

- **Educational ladder of U.S.A. and China with special reference to India**
- **Compare the salient features of educational system (aims, curriculum, and evaluation) of U.S.A., China and India.**

(14 lectures)

Objectives: After completion of the course, the prospective teacher educators will be able to

- explain the educational ladder of U.S.A., China and India.
- compare the salient features of educational system of U.S.A., China and India

Resources: Sodhi, T.S., (1983): A Text Book of Comparative Education, New Delhi: Vikas Publishing House Pvt. Ltd.

Sharma, R.N. (2008): Comparative Education, New Delhi: Surjeet Publications

Sharma, Y.K. (2004): Comparative Education – A Comparative Study of Educational 66 Systems, New Delhi: Kanishka Publishers

PPTs and Pdf s of the various topics (on MOODLE).

Unit-III

(14 lectures)

**Lesson 1 Title:a) Educational ladder of U.S.A. and China with special reference to India
(6 lectures)**

**Lesson 2 Title: b) Compare the salient features of educational system (aims, curriculum, and evaluation) of U.S.A., China and India.
(8 lectures)**

Assignment and Activities-Prepare an Educational ladder of U.S.A. and China
(*Submission*)

Evaluation: Compare the salient features of the educational system (aims, curriculum, and evaluation) of U.S,A,India and China. (*Submission*)

Unit-IV(10 lectures)

May 2024

Summary of Unit:

- **Teacher Education program in U.K., Finland, U.S.A., China and India.**
 - **Recent trends and innovations in education of above mentioned countries.**
- (10 lectures)**

Objectives: After completion of the course, the prospective teacher educators will be able to

- compare the teacher education program in U.K., Finland, U.S.A., China and India.
- discuss recent trends and innovations in education of U.K., Finland, U.S.A., China and India.

Resources: Sodhi, T.S., (1983): A Text Book of Comparative Education, New Delhi: Vikas Publishing House Pvt. Ltd.

Sharma, R.N. (2008): Comparative Education, New Delhi: Surjeet Publications

Sharma, Y.K. (2004): Comparative Education – A Comparative Study of Educational 66 Systems, New Delhi: Kanishka Publishers

PPTs and Pdf s of the various topics (on MOODLE).

Unit-IV

(8 lectures)

Lesson 1 Title:a) a) Teacher Education program in U.K., Finland, U.S.A., China and India.

(6 lectures)

Lesson 2 Title: b) Recent trends and innovations in education of above mentioned countries.

(2 lectures)

Assignment and Activities-Teacher Education program in U.K., Finland, U.S.A., China and India.(*Submission*)

Evaluation: Recent trends and innovations in education n U.K., Finland, U.S.A., China and India. . (*Submission*)

Sessional work: Exhibit on socio-political-cultural-geographical aspect of any of the five countries in course. (To be submitted by April 2022)

Evaluation Scheme:

- Examiner will set 9 questions, two from each unit and one question (Question No.9) covering the entire syllabus will consist of four short answer type questions.
- Students are required to attempt five questions in all, selecting one question from each unit and Question No.9 which is compulsory.
- All questions carry equal marks. Duration of external examination will be three hours.

References:

- Choube, S.P. and Choube, A., (1993) : Comparative Education, New Delhi : Commonwealth Publishers.
- Choube, S.P., Features of Comparative Education, Agra : Vinod Pustak Mandir
- Hans, N. (1965) : Comparative Education, London, Routledge and Kegan Paul Ltd.
- James, H.R. & Mathew, A. (1988) : Development of Education System in India, Ansari Road, Daryaganj, New Delhi, D.K. Publisher Distributors (P.) Ltd.,
- Sharma, Y.K. (2004): Comparative Education – A Comparative Study of Educational Systems, New Delhi: Kanishka Publishers.
- Sodhi, T.S., (1983): A Text Book of Comparative Education, New Delhi: Vikas Publishing House Pvt. Ltd.

COURSE TITLE: Lifelong Learning-IV

Credits= 4

Total Marks= 100

External= 70 Theory

Internal= (Assessment=20; Sessional work=10)

COURSE OBJECTIVES

On completion of this course, students will be able to:

- Concept of lifelong education
- Approaches to lifelong education
- Concept, aims, Need and importance of adult and continuing education
- Literacy situation in the country and government initiatives to improve literacy status
- Administration and management of adult and continuing education programmes
- Role of universities in adult and continuing education
- Concept of andragogy and its applications
- Impact of lifelong education on formal education
- Types of continuing education Programmes
- Areas of research in adult, continuing and lifelong education

UNIT-1

S.No.	Topics	Mode/ Resources	Month	Tentative lectures
1.	a)Philosophical and sociological basis of lifelong education – Need and importance in contemporary world	Classroom Lecture, Discussions, Notes in the form of pdfs / docs shared with students through LMS	January	05

2.	b) Concept and Scope of lifelong education – Literacy, awareness, continuing education and empowerment of all sections of society.	Classroom Lectures , PowerPoint Presentations, Notes in the form of pdfs / docs shared with students through LMS	January	06
3.	c) Adult and Continuing Education; Evolution of concept, aims, need and importance in the contemporary world and practice.	Classroom Lectures and Discussion Methods, Notes in the form of pdfs / docs shared with students through LMS	February	07
UNIT-2				
4.	a) Literacy situation in India. Total Literacy Campaign (TLC) Objectives and Strategies; New Initiatives in Adult and Continuing education; Sakshar Bharat. b) Centre and State Level organisations for Administration and management of adult and continuing education programmes.	Assignments/ Classroom Presentations by Students, Notes in the form of pdfs / docs shared with students through LMS	February	09

5.	c) Role of UGC and Universities in adult, continuing and lifelong education: Departments/Centres for adult and continuing education and extension education. The field outreach programmes.	Classroom Seminars by Students, Discussions, Notes in the form of pdfs / docs shared with students through LMS, PowerPoint Presentations	March	07
UNIT-3				
6.	a. Andragogy: meaning and concept, implication for lifelong learning.	Classroom Lectures, Notes in the form of pdfs / docs shared with students through LMS, PowerPoint Presentations	March	05
7.	b) Psychology of adult learners; Principles of adult learning and curriculum development for adults	Classroom Discussion, PowerPoint Presentations, Videos related with the topics, Notes in the form of pdfs / docs shared with students through LMS	March	09
8.	c) Teaching methods for adult learners.	Discussion, Notes in the form of pdfs / docs shared with students through LMS	April	05
UNIT-4				

9.	Impact of Life Long Education on formal education – Education for diverse target groups through open and distance mode, web-based learning and community colleges	Classroom lectures, Notes in the form of pdfs / docs shared with students through LMS	April	06
10.	<p>b) Continuing education programmes for community development with special reference to literacy mission, women empowerment, legal literacy and vocational education and awareness</p> <p>c) Research Areas in Life Long Learning and Adult Education and Continuing Education</p>	Classroom Discussion, Powerpoint Presentations, Videos related with the topics, Notes in the form of pdfs / docs shared with students through LMS	April/May	05/06

Note :

- **Midterm Exams will be conducted in the month of April.**
- **Revision work will be done in the month of May.**

SESSIONAL WORK (INTERNAL) 10 MARKS

Any of (a) and (b)

- a) Poster preparation and exhibition of any of the following: (i) Legal Literacy (ii) Open learning (iii) Part time courses (iv) Web based Education
- b) Planning a target specific continuing education course and submission of a detailed course draft.

EVALUATION SCHEME

Examiner will set 9 questions, two from each unit and one question (Question No.9) covering the entire syllabus will consist of four short answer type questions. Students are required to attempt five questions in all, selecting one question from each unit and Question No. 9 which is compulsory. All questions carry equal marks (long answer -14 marks each and short questions- 3.5 marks each). Duration of external examination will be three hours