**BACHELOR OF EDUCATION (B. Ed.)** 

# **Curriculum Design**

S. No	Code No.	Title of the paper	Int. Marks	Ext. Marks	Total Marks	Credits
		First Semeste	er	1		
01	70111	Contemporary India and Education	25	75	100	4
02	70112	Educational Psychology	25	75	100	4
03	70113 A/B	Optional – I Tamil/ English	25	75	100	4
04	70114	Practical – I Enhancing Professional Capacities		200	200	8
		Total	75	425	500	20
		Second Semes	ter			
05	70121	Educational Evaluation	25	75	100	4
06	70122	Curriculum and instruction	25	75	100	4
07	70123 A/B/ C/D/E/F/G	Optional-II Tamil/ English/ Mathematics/Science/Social Studies/Commerce/Economics	25	75	100	4
08	70124	Practical – II General Practicum Components		200	200	8
		Total	75	425	500	20
		Third Semest	er	1		l
09	70131	Critical Understanding of ICT	25	75	100	4
10	70132	Guidance and Counselling	25	75	100	4
11	70133	Environmental Education	25	75	100	4
12	70134	Practical – III School based Learning activities		200	200	8
		Total	75	425	500	20
		Fourth Semes	ter	1	l	<u> </u>
13	70141	Educational Technology	25	75	100	4
14	70142	Practical – IV School Internship/ practice Teaching		400	400	16
		Total	25	475	500	20

No. of credits per semester- 20	
Total No. of credits programme – 4 X 20= 80	
Total Marks- 2000	

**B.Ed. - Distance Education 2015-2016 onwards – Practicum Component** 

## 70114 Practical – I Enhancing Professional Capacities -200 Marks (8 credits)

S. No.	Activity	Maximum Marks	Credits
1.	Reading and reflecting on text	50	2
2.	Drama and Arts in Education	50	2
3.	Understanding Self	50	2
4.	Application of ICT	50	2

## 70124 Practical – II General Practicum Components -200 Marks (8 credits)

S. No.	Subjects	Maximum Marks	Credits
1.	Yoga Education	50	2
2.	Language Across the curriculum	50	2
3.	Inclusive Education	50	2
4.	Gender Studies	50	2

## 70134 Practical – III School based Learning Activities-200 Marks (8 credits)

S. No.	Activity	Maximum Marks	Credits
1.	Addressing School Assembly on different themes	50	2
2.	Preparation of school time table	50	2
3.	Organizing Quiz/Debate/Parent teacher Association	50	2

4.	Maintenance of a school Register	50	2

# 70142 Practical – IV School Internship/ Practice teaching – 400 marks (16 credits)

Subjects/Records	Maximum Marks	Total	Credits
Pedagogy Optional I Preparation and utilization of teaching aids	25		
Teaching competence	75	100	4
Pedagogy-Optional II Teaching Competence	75		
Preparation and utilization of teaching Aids	25	100	4
Observation			
Pedagogy –Optional I	25	<b>50</b>	2
Pedagogy –Optional II	25	50	2
Lesson Plan			
Pedagogy Optional –I	25	<b>5</b> 0	2
Pedagogy Optional -II	25	50	2
Micro Teaching			
Pedagogy Optional –I	25	50	2
Pedagogy Optional -II	25	50	2
Test and Measurement			
Pedagogy Optional –I Pedagogy Optional -II	25 25	50	2
	Pedagogy Optional I Preparation and utilization of teaching aids Teaching competence  Pedagogy-Optional II Teaching Competence Preparation and utilization of teaching Aids  Observation Pedagogy -Optional II Pedagogy -Optional II  Lesson Plan Pedagogy Optional -I Pedagogy Optional -II  Micro Teaching Pedagogy Optional -II Pedagogy Optional -II  Test and Measurement Pedagogy Optional -I	Pedagogy Optional I Preparation and utilization of teaching aids  Teaching competence  Pedagogy-Optional II Teaching Competence  Preparation and utilization of teaching Aids  Observation  Pedagogy -Optional II	Pedagogy Optional I Preparation and utilization of teaching aids  Teaching competence  Pedagogy-Optional II Teaching 75 Competence  Preparation and utilization of teaching Aids  Observation  Pedagogy - Optional II 25 Pedagogy - Optional II 25 Pedagogy - Optional II 25 Pedagogy Optional - II 35 Pedagogy Optional - II 35

# ANNEXURE- I

# **Detailed Syllabi**

# 70111 - CONTEMPORARY INDIA AND EDUCATION

#### **OBJECTIVES**

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

- \* know the meaning, definition and nature of Education and Philosophy
- understand the relationship between education and philosophy and different Indian and Western philosophies
- \* apprise the principles of education advocated by great Indian and Western philosophers
- develop an understanding of Sociology and Education
- ❖ understand the role of family, community, school and mass media in education
- get exposed to social and educational problems
- appreciate the social values and personal values of teachers
- ❖ acquire the knowledge about the educational provisions in the constitution of India
- \* explain the role and functions of various regulatory bodies in Education
- ❖ acquaint with the knowledge about health and nutrition

#### **UNIT I Philosophy and Education**

Education: Meaning, Definition, Nature and Scope – Philosophy: Meaning, Definition and Scope – Educational Philosophy: Meaning, Definition and Need – Relationship between education and philosophy.

## **UNIT II Contribution of Indian Philosophy in Education**

Major Schools of Indian Philosophy:

- (i) Hinduism
- (ii) Buddhism
- (iii) Jainism.

#### **UNIT III Contribution of Indian Thinkers to Education**

Educational thoughts of Indian thinkers:

- (i) Vivekananda
- (ii) Mahatma Gandhi
- (iii) Tagore
- (iv) Aurobindo.

#### **UNIT IV Contribution of Western Philosophy in Education**

Contribution of Western Philosophy in Education

- (i) Naturalism
- (ii) Idealism
- (iii) Pragmatism
- (iv) Realism
- (v) Eclectism.

#### **UNIT V Contribution of Western Thinkers to Education**

Educational Thoughts of Western thinkers:

- (i) Rousseau
- (ii) Frobel
- (iii) Montessori
- (iv) John Dewey.

## **UNIT VI Sociology and Education**

Concept of Sociology

Relationship between Sociology and Education

Socialization - Culture

Social mobility – Social-stratification

Social change - Modernization.

## **UNIT VII Agencies of Education**

Educational influence of family, community, religion, school and Mass media

Formal and non-formal systems of education

Open University system

Distance Education.

## **UNITVIII Problems in Indian Society and Education-I**

Population explosion – Unemployment – Under employment – Illiteracy – Child labour

- Communal violence - Terrorism - Universalisation of primary education.

## **UNIT IX Problems in Indian Society and Education- II**

Stagnation

Wastage

Special education for differentially abled and gifted

Women education

Brain Drain.

#### **UNIT X Value Education and the Teacher**

Value: Definition, classification – Value education in schools – Teachers personal values and code of ethics – Personal and professional development of teachers.

#### **UNIT XI Indian Constitution and Education**

Directive Principles – Article 45 – Responsibilities of Central and State Governments – Amendments related to education

#### **UNIT XII University Education Commission**

University Education Commission – Indian Education Commission – Secondary Education Commission – Ishwarbhai Patel Committee – NPE 1986.

## **UNIT XIII Regulatory Bodies of Education**

MHRD – UGC–NIEPA –NCERT – NCTE– NAAC– TANSCHE – DTERT– DIET– CABE–CBSE.

#### **UNIT XIV Health and Nutrition Education**

The concept of health – School health programmes – Common ailments of children – First aid – Nutritional deficiencies – Balanced diet – Healthy food habit.

#### REFERENCE BOOKS

- 1. Agarwal, J.C. (1999). Theory and Principles of Education. New Delhi: Vikas Publications House Pvt. Ltd.
- 2. Biswal, U.N. (2005). Philosophy of Education. New Delhi: Dominant Publishers and Distributors.
- 3. Chandra, S.S. (1996). Principles of Education. New Delhi: Atlantic Publishers.
- 4. Ghanta, R. and Dash, B.N. (2005). Foundations of Education. Hyderabad: Neelkamal Publications.
- 5. Mathur, S.S. (1997). Sociological and Philosophical Foundations of Education. Agra: Vinod Pustak Mandir.
- 6. Patel, M.S. (1953). The Educational Philosophy of Mahatma Gandhi. Ahmedabad: Navjeevan Pub. House.

- 7. Sharma, R.A. (2008). Development of Educational System in India. Meerut: R.Lall books depot.
- 8. Sharma, R.N. (2008). Education in the Emerging Indian Society. Delhi: Surject Publications.
- 9. Saraswathi, T.S. (1999). Culture, Socialisation and Human Development. New Delhi: Sage Publications.

## 70112- EDUCATIONAL PSYCHOLOGY

## **OBJECTIVES**

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

❖ acquire knowledge of nature and scope of Educational Psychology

- understand the human growth and development
- apply psychology in classroom situations
- comprehend the concept of cognitive development
- acquaint the theories of learning
- ❖ acquire knowledge about individual differences and skill provide suitable learning situations
- understand the significance of motivation
- \* acquire knowledge about personality intelligence and creativity
- \* know the importance of mental health

#### **UNIT I Introduction to Psychology**

Definition of Psychology- Schools of Psychology – Behavioural, Cognitive, Psychoanalysts, Methods of Psychology – Branches of Psychology – Educational Psychology – Concepts, Nature and Scope – Importance of Educational Psychology for the Teacher.

#### **UNIT II Human Growth and Development**

Concept of Growth and Development – Distinction between Growth and Development – Maturation and Development – Nature versus Nurture, general principles of Growth and Development.

## **UNIT III Dimensions of Development**

Dimensions of development: Physical, cognitive, emotional, and moral – Stages of Development – Childhood to adolescence problems and Education of Adolescents – Developmental tasks and its Educational implications.

#### **UNIT IV Cognitive Development- I**

Cognitive process – Attention Factors relating to Attention – Span of Attention – Inattention and Distraction – Sensation and Perception – Factors relating to perception – Imagery.

## **UNIT V Cognitive Development- II**

Concept Maps.

Piaget's Stages of Cognitive Development

Reasoning and problem Solving

Meta cognition – Implications for the teacher.

#### **UNIT VI Learning**

Nature and Importance of Learning – Types of Learning – Theories of Learning: Thorndike, Pavlov, Skinner, Kohler and Gagne – Learning Curve – Transfer of Learning Facilitating Transfer – Remembering and Forgetting – Improving memory.

#### **UNIT VII Individual Differences**

Nature and causes of Individual differences – Educational programme to suit individual differences – Classroom instruction – Concept of exceptional children: gifted, backward, physically mentally and socially challenged and Educational provisions.

#### **UNIT VIII Motivation-I**

Motivation: Functions of Motives – Kinds of Motives – Theories of Motivation – Maslow's Hierarchy of Needs – Achievement motivation – Components – Fear of Failure and Hope of Success.

#### **UNIT IX Motivation-II**

Motivation in the classroom context motivational functions of teacher - Praise and Blame, Rewards and Punishments - Feedback / Knowledge of results - Level of Aspiration - Characteristics of a motivated learner.

#### **UNIT X Intelligence**

Theories of Intelligence – Single, Two Factor and Multi Factor theories – Multiple Intelligence, Guilford's Structure of the Intellect – Emotional Intelligence – Individual differences in distribution of Intelligence – Test and their uses.

#### **UNIT XI Creativity**

Creativity – Relationship and differences between intelligence and creativity – Convergent and Divergent Thinking – The Process of Creativity – Guiding for Creativity – Measuring Creativity.

#### **UNIT XII Personality**

Meaning and Definitions of Personality

**Determinants of Personality** 

Theories of personality – Psychoanalytic, humanistic.

#### **UNIT XIII Assessment of Personality**

Assessment of Personality
Important Tools and techniques
Integrated Personality.

#### **UNIT XIV Mental Health**

Conflict and Frustration – Concept of Adjustment – Adjustment Barriers – Adjustment mechanisms – Causes of maladjustment – Symptoms of Maladjustment – Defense Mechanisms – Problem children, Juvenile Delinquency – Concepts of Mental Health.

#### REFERENCE BOOKS

- 1. Judith J. (2008) Learners, learning and educational activity London Routledge
- 2. Graham R. (2008) Psychology: The key concepts, London, Routledge
- 3. Chobra, RK.(2006) Elements of educational Psychology, New Delhi Arise Publishers
- 4. Thomas M.H (2005) A student's guide to studying psychology, London Psychology Press.
- 5. Cara .F (1998) Practical for Psychology. A student workbook London, Routledge
- 6. Coleman, D. (1998) Working with emotional intelligence New York: Bantan Books
- 7. Adams J.A (1992) Learning and Memory: An Introduction Illions Dorsey Press.
- 8. Mangal, S.K (1981) Psychological Foundations of Education Ludhiana Parkash Bros.
- 9. Kokila Thangasamy.S (2007) Educational Psychology Maa Nila Pathipagam Madurai.
- 10. Nagarajan.K & Seetharaman (2009) Psychology of Learning & Human Development Ram Publishers, Chennai

70113A- பொதுத் தமிழ

## நோக்கங்கள்

## மாணவ ஆசிரியர்கள்

💠 தாய்மொழி கற்றலின் நோக்கங்களை அறிதல்

- 💠 தமிழ்மொழியின் பல்வேறு பயிற்று முறைகளை அறிதல்
- 💠 பாடத்திட்டம் அமைத்தலில் அமைந்துள்ள கோட்பாடுகளை அறிதல்
- கற்பித்தல் திறன்களை அறிதல்
- 💠 கேட்டுணர்தல் திறனையும் பொருளுணர்தல் திறனையும் அறிதல்
- 💠 சிறந்த படிக்கும் பழக்கங்களை வளர்த்தல்
- சிறந்த எழுத்தாற்றலை வளர்த்தல்
- 💠 செய்யுள் உரைநடைப் பாடங்களைக் கற்பித்தலின் வேறுபாடுகளை அறிதல்
- 💠 வினாத்தாள் அமைத்தலில் உள்ள பல்வேறு திறன்களை வளர்த்தல்
- 💠 தேர்வு குறித்த சிந்தனை பெறுதல்
- 💠 தமிழ் கற்பித்தலில் தகவல் நுட்பவியலைப் பயன்படுத்துதல்

## அலகு- 1 தாய்மொழிக்கல்வி

தாய்மொழி – தாய்மொழி கற்பித்தலின் நோக்கங்கள் – பயன்கள் – தனிச்சிறப்பு – எண்ணத்தை வெளியிடும் கருவி – திருத்தமாகப் பேச, கேட்க, படிக்க, எழுதப் பயிற்சி அளித்தல்.

## அலகு- 2 தமிழைப் பயிற்றும் முறைகள்- I

தமிழ் மொழியினைப்பயிற்றும் முறை பண்டையோர் கண்ட பயிற்று முறை சங்ககாலம் முதல் தற்காலம் வரையில் விளையாட்டு முறை

#### அலகு- 3 தமிழைப் பயிற்றும் முறைகள்- II

செயல்திட்ட முறை தனிப் பயிற்சி முறை மேற்பார்வைப் படிப்பு முறை திட்டமிட்டுக்கற்றல்

இம்முறைகளைப் பல்வேறு நிலைகளில் பயன்படுத்துதல்.

#### அலகு- 4 பயிற்சி ஆயத்தம்

நடிப்பு முறை.

உற்று நோக்கல் பதிவு – நோக்க அடிப்படையில் கற்பித்தல் – மொழிக்கற்பித்தல் நோக்கங்களும், நோக்கக் கூறுகளும் – பாடத் திட்டம் தயாரித்தலின் இன்றியமையாமை – நன்மைகள், தீமைகள் – ஆசிரியர் மனதிற் கொள்ளத்தக்கன – புளுமின் கற்பித்தல் கோட்பாடுகள்.

## அலகு- 5 நுண்ணிலைக் கற்பித்தல்

நுண்ணிலைக் கற்பித்தல் திறன்களில் பயிற்சி — பல்வகைத் தூண்டல்களைப் பயன்படுத்தும் திறன், கிளர் வினாத்திறன், வலுவூட்டிகளைப் பயன்படுத்தும் திறன், கரும்பலகையைப் பயன்படுத்தும் திறன், உதாரணங்களைப் பயன்படுத்தும் திறன் மற்றும் இணைப்புப் பயிற்சி.

#### அலகு- 6 துணைக்கருவிகளைப் பயன்படுத்துதல்

துணைக்கருவிகள்

துணைக்கருவி வகைகள்

காட்சிக் கருவிகள்

கேள்விக்கருவிகள்

காட்சி-கேள்விக் கருவிகள்

உருவாக்கம் பயன்படுத்துதல்.

## அலகு- 7 மொழித்திறன்களைக் கற்பித்தல்

பேசுதல் திறன் — நோக்கம் —முறைகள் — பயிற்சி — பயன்கள் கேட்டல்திறன் — நோக்கம் — முறைகள் — பயிற்சி — பயன்கள்

#### அலகு- 8 மொழித்திறன்களைக் கற்பித்தல்

படித்தல் திறன் —நோக்கம் —முறைகள் — பயிற்சி — பயன்கள் எழுதுதல் திறன் — நோக்கம் — முறைகள் — பயிற்சி — பயன்கள்.

## அலகு- 9 பாடநூல்

பாடநூல் —அமைப்பு முறை — உள்ளடக்கம் — வல்லுநர்களின் வழிகாட்டல் — தொடக்கநிலை, நடுநிலை, உயர்நிலை, மேல்நிலை வகுப்புகளில் மொழிப்பாடத் திட்ட நோக்கங்கள் — அவற்றின் மொழிப்பாடங்கள் — அமைப்பு முறை பற்றிய கருத்துக்கள் — உள்ளடக்கப்பகுப்பாய்வு — பயிற்சிச் சிக்கல்கள் — தீர்வுகள்.

## அலகு- 10 கற்பித்தல் பொது முறை

செய்யுள் பயிற்று முறை — உரைநடை பயிற்று முறை — இலக்கணம் பயிற்று முறை — துணைப்பாடம் பயிற்று முறை — (மாதிரி வகுப்புகள் வழி பயிற்சி ஆசிரியர்களுக்கு விளக்கம் அளித்தல்) — மொழிப்பயிற்சியும் — கட்டுரை வரைதலும்.

## அலகு-11 தகவல் நுட்பவியலும் தமிழ் கற்பித்தலும் -I

மொழிக் கற்பித்தலில் மக்கள் தொடர்புச்சாதனங்கள் (Mass media in Language Teaching) கணினி அடிப்படையில் கல்வி (Computer Based Education) – கணினி துணையுடன் கற்பித்தல் (Computer Assisted Instruction) - கணினி மேலாண்மையில் கற்பித்தல் (Computer Managed Instruction)

## அலகு-12 தகவல் நுட்பவியலும் தமிழ் கற்பித்தலும் -II

கணினி ஊடகக் கற்பித்தல் (Computer Mediated Communication) கணினியில் தமிழ் மின் தமிழ் இணையத்தில் இணைந்த தமிழ்.

## அலகு-13 மதிப்பீடு- I

தமிழ் கற்பித்தலின் விளைவுகளை மதிப்பிடல் – மதிப்பிடுதலின் நோக்கமும் பயனும் – பண்புகள் – நல்ல தேர்வின் இன்றியமையாத கூறுகள் – தேர்வு வகைகள் – வினா வங்கியின் பயன் – வினாத்தாள் வடிவமைப்பு – வினா வகைகள் – தொடர் மற்றும் முழுமையான மதிப்பீடு (CCE) – பயன்கள் – நோக்கம்.

## அலகு-14 மதிப்பீடு- II

மையப் போக்கு அளவைகள்: கூட்டுச்சராசரிஇ இடைநிலை, முகடு சிதறல் அளவைகள் : வீச்சு, திட்ட விலக்கம், கால்மான விலக்கம் ஒட்டுறவு பொருளும் பயன்களும் – தர ஒட்டுறவுக் கெழு விளக்கம்.

#### செய்முறைப் பயிற்சிகள்

- 🌣 கருத்தரங்கு நடத்துதல்
- 🌣 கற்பித்தல் பொருள் தயாரித்தல் தொடர்பான துணைக்கருவிகள் தயாரித்தல்
- 💠 வானொலி அல்லது தொலைக்காட்சிப் பேச்சைக் கேட்டுக் குறிப்பெடுத்தல்
- வினாவங்கி தயாரித்தல்
- 💠 குறையறி சோதனையும் குறைதீர் பயிற்சியும்

## பார்வை நூல்கள்

- 1. கணபதி வி. (1989) "தமிழ் ஐவகைப் பாடங்களும் கற்பித்தல்" சாந்தா பதிப்பகம் சென்னை -14
- 2. கோவிந்தராஜன் மு. (1990) "நற்றமிழ் பயிற்றழின் நோக்கமும் முறையும்"இ சரஸ்வதி பதிப்பகம் சென்னை.
- 3. புலவர் செந்தூர் பாண்டியன் (1979) "நுண்ணிலைப்பயிற்சி " மீனாட்சி பதிப்பகம் புதுக்கோட்டை
- 4. வேணுகோபால் இ.பா (1991) "பைந்தமிழ் கற்பிக்கும் முறைகள் சகுந்தலா வெளியீட்கம் வேலூர்.
- 5. முனைவர் பழனிவேலு ஞா. ''தமிழ் கற்பித்தழில் புதுமைப்போக்குகள்''.கபிலன் பதிப்பகம்
- 6. கோவிந்தராஜன் மு. (1980) "மொழித்திறன்களும் சில சிக்கல்களும்" தேன்மொழிப்பதிப்பகம் சென்னை
- 7. கணபதி வி. (2005) "நற்றமிழ் கற்பிக்கும் முறைகள்" சாந்தா பதிப்பகம் சென்னை -14
- 8. இலக்குவன் (2008) : தமிழ்ப்பாடநூலும் ஆசிரியரும், சென்னை : சாரதா பதிப்பகம்

## 70113B- TEACHING OF ENGLISH

#### **OBJECTIVES**

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

- ❖ realize the role of English in India in the right perspective and the rationale for learning English as a second language
- ❖ get familiarized with the various aspects of the B.Ed. programme with special reference to the nature of the language skills to be developed and evaluation
- ❖ acquire knowledge of the current trends in the teaching of English
- ❖ get familiarized with techniques of oral preparation and practice of language items.

## **UNIT I Role of English in Indian Classroom- I**

The status of English in India today – The rationale for learning English – Aims of teaching English at the Primary level, Secondary level and Higher Secondary level - Objectives of teaching English as a second language.

## UNIT II Role of English in Indian Classroom- II

Teaching English as a skill rather than a knowledge subject – The scope of the B.Ed. English course – Recommendations of Indian commissions and Committees on English Language Education – Qualities of a Good English Teacher.

#### **UNIT III Teaching of Different Skills in English**

Bloom's Taxonomy of Educational Objectives – Cognitive – Affective – Psychomotor domains – General and Specific Instructional Objectives – Micro teaching – Macro teaching – Use of different drills in Teaching Oral English.

## UNIT IV Technology Assisted Language Learning (TALL) - I

Teacher made aids – Flash cards, Pictures, Charts, Models, Blackboard sketches - Mechanical aids – Overhead projector, Tape recorder, Lingua phone records, Radio, Television.

## UNIT V Technology Assisted Language Learning (TALL) – II

Programmed learning – Language laboratory – Computer assisted language learning – Power point presentation – Related websites in language learning.

#### **UNIT VI Approaches and Methods of Teaching English**

Method – Approach – Technique – Design – Method – Grammar Translation Method – Bilingual method – Direct Method – Dr.West's new method – Merits and Demerits – Approaches – Structural Approach – Types of Structures – Selection and Grading of Structures – Principles of Situational – Oral Approach – Communicative approach—Eclectic approach – Recent trends in the teaching of English.

### **UNIT VII Types of Evaluation**

Difference between measurement and evaluation - Characteristics of a good English test -Concept of Evaluation - Types of evaluation - formative and summative- Different types of tests - Achievement tests - Aptitude tests - Proficiency tests - Diagnostic tests - Construction of a good test - Preparation of blue print.

#### **UNIT VIII Role of Mother-Tongue in Teaching English**

Use of the Mother-Tongue in the English Class – Difference between Learning the Mother-Tongue and the other tongue – Arguments against the use of Mother-Tongue – When to use the Mother-Tongue.

#### **UNIT IX Listening Comprehension - I**

Sub skills of listening – listening for perception – listening for comprehension – The three phases of listening – Listening material – listening to specific information, for general understanding, to deduce meaning.

## **UNIT X Listening Comprehension - II**

Listening activities – dictation, following a route, listening to a telephone call, listening to commentaries, listening to instructions, Jigsaw listening.

## **UNIT XI Speaking Skills-I**

Techniques in teaching speaking – Tasks for developing speaking skill – Individual, pair and group work – Improving oral fluency – Dialogue – Role play – Dramatization – Play Reading – Group Discussion.

## **UNIT XII Speaking Skills-II**

Narration – Description – Communication Game – Debate – Interview – Extempore Speech – Barriers for Effective Communication – Testing Speaking.

#### **UNIT XIII Reading Skills**

Aims of teaching reading - Process involved in reading - Symbol, sound, sense- Types of reading - reading aloud - silent reading - skimming - scanning - intensive reading - extensive reading - Methods of teaching reading to beginners - Alphabet method - Phonetic method - Word method - Phrase method - Sentence method - Strategies to develop reading.

### **UNIT XIV Writing Skills**

Mechanics of Writing – Sub skills in writing – visual perception – syntax – organization – grammar – content purpose – relevance – Writing skills – Mechanical skills – Grammatical skills – Judgment skills – Discourse skills – Characteristics of good Handwriting – distinctiveness – legibility – simplicity – uniformity – spacing – capitalization – punctuation – speed – Developing good handwriting.

#### REFERENCE BOOKS

- 1. Aggarwal, J. C. (2008). Essentials of Educational Technology. UP: Vikas Publishing House Pvt Ltd.
- 2. Aggarwal. J. C. (2008). Principles, Methods & Techniques of Teaching. UP: Vikas Publishing House Pvt Ltd.
- 3. Chauhan, S. S. (2008). Innovations in Teaching Learning Process. UP: Vikas Publishing House Pvt.Ltd.
- 4. Dhand, H. (2009). Techniques of Teaching. New Delhi: APH Publishing Corporation
- 5. Palmer, H. E. (2008). Oral Method of Teaching Language. Delhi: Surject Publications.
- 6. Rao, P. (2005). Method of teaching English. Hyderabad: Neelkamal Publications.
- 7. Sharma, R. N. (2008). Principles and Techniques of Education. Delhi: Surject Publications.
- 8. Sharma, R. N. (2008). Contemporary Teaching of English. Delhi: Surject Publications.
- 9. Sharma, R. A. (2008). Technological foundation of education. Meerut: R.Lall Books Depot.
- 10. Siddiqui, M.H. (2009). Techniques of Classroom Teaching. New Delhi: APH Publishing Corporation.
- 11. Venkateswaran, S. (2008). Principles of Teaching English. UP: Vikas Publishing House Pvt.Ltd.

## **70114 Practical – I Enhancing Professional Capacities**

## 200 Marks (8 credits)

S. No.	Activity	Maximum Marks	Credits
1.	Reading and reflecting on text	50	2
2.	Drama and Arts in Education	50	2
3.	Understanding Self	50	2
4.	Application of ICT	50	2

## 70121- EDUCATIONAL EVALUATION

#### **OBJECTIVES**

The student-teacher will be able to

- > understand the concept of Assessment, measurement and evaluation
- > apply measurement and evaluation in their teaching field
- > understand the different approaches to evaluation
- > understand and adopt CCE in their teaching and learning
- develop knowledge about techniques and tools of evaluation
- > appreciate the new trends in evaluation
- > implement the new examination system
- > understand the need, importance and meaning of statistics
- > prepare scholastic achievement test

#### **COURSE CONTENT**

#### Unit I – Concept of Assessment, Measurement and Evaluation

- 1.1 Concept and Meaning of assessment, measurement and evaluation.
- 1.2 Relationship and difference between measurement and evaluation.
- 1.3 Need and Importance of Evaluation.
- 1.4 Purpose of Evaluation
- 1.5 Place of Evaluation

#### **Unit II – Approaches to Evaluation**

- 2.1 Test and different types Placement, Formative, Summative, diagnostic, Prognostic.
- 2.2 Distinction between Formative and Summative Evaluation
- 2.3 Continuous and Comprehensive evaluation: Meaning, need and relevance, procedures of Evaluation, Criteria of Evaluation

## **Unit III – Techniques of Evaluation - I**

- 3.1 General Techniques of Evaluation
- 3.2 Quantitative technique and Qualitative technique
- 3.3 Self-reporting techniques

## **Unit IV – Techniques of Evaluation - II**

- 4.1 Observation techniques
- 4.2 Projective Techniques
- 4.3 Sociometric Techniques.

#### **Unit V – Tools of Evaluation**

- 4.1 Tools of Evaluation Rating Scales and Types Aptitude Tests Anecdotal Records-Inventories Teacher made and Standardized tests.
- 4.2 New Trends in Evaluation Grading system Computer based Examination Choice Based Credit System-other New Trends

#### **Unit VI – Instructional Objectives and Evaluation**

- 6.1 Instructional Objectives and Specifications.
- 6.2 Cognitive Domain, Affective Domain, Psycho-motor Domain –Evaluation Pattern.

#### **Unit VII – Bloom's Approach**

- 7.1 Bloom's Evaluation Approach-Meaning and Definition-Techniques for evaluation of behavioural Modification.
- 7.2 Coordination of Teaching and Testing Activities.

#### Unit VIII - Scholastic Achievement Test (SAT).

- 8.1 Purpose of Scholastic Achievement Test
- 8.2 Preparation of scholastic Achievement test- planning, preparation, designing the test items, review and editing, arranging the test items, providing directions, preparing scoring key and marking scheme, administering test and scoring, Evaluating the test.
- 8.3 Characteristics of good measuring instrument- Validity, Reliability, Objectivity, Adequacy, Practicability, Discrimination Index.

## **Unit IX – Examination System - I**

- 9.1 Examination: Meaning, Types, Objectives of Examination, Test and Examination
- 9.2 Present Examination System, Examination Reforms, NCERT and Examination Reforms

## Unit X – Examination System - II

- 10.1 On-Line Examination: Meaning, Advantages, Limitations, Requirements for on-line Exam.
- 10.2 Open Book Examination (OBE): Meaning, Types, Objectives, Advantages, and Limitations.

## **Unit XI – Construction of Objective Type test Items**

- 11.1 Objective Test Items –Meaning –Standardized-Teacher Made Objective Test Items
  Objective Test Items –Comparison between Teacher made objective Test and Standard
  Objective Test Items
- 11.2 Steps of Construction of Objective Type Tests. Planning, Preparation, Try-out, Evaluation of Test.
- 11 .3 Types of Items of an Objective Test- Recall type-Recognition Type-Advantages and limitations

#### Unit XII - Analysis and Interpretation of Scores I

- 12.1 Importance and essentials of interpretation of scores.
- 12.2 Measures of central tendency- Arithmetic Mean, Median and Mode

#### **Unit XIII - Analysis and Interpretation of Scores II**

- 13.1 Measures of Variability- Range, Quartile Deviation, Standard Deviation, and Mean Deviation
- 13.2 Coefficient of Correlation Spearman Brown's Rank Difference Method.

## **Unit XIV - Analysis and Interpretation of Scores III**

14.1 Normal Probability Curve- Properties and Uses

14.2 Skewness and Kurtosis.

14.3 Graphical representation of data – Importance of Graphical representation of data-Types of Graphical representation, Limitations

14.4 Histogram, Frequency Polygon, Cumulative frequency Curve

#### REFERENCES

All India Council for Secondary Education (AICSE) (1956). **Report of the Bhopal Seminar on Examination Reform.** New Delhi.

DDE (1997). Research Methodology and Educational Technology. Pondicherry University.

Henry E. Garret. (1926). **Statistics in Psychology and Education**. Bombay: Vakils, Feffer and Simons Ltd.

IGNOU. (2000). Educational Evaluation. New Delhi

Nagarajan K. (1996). Handbook of Statistics. Madras: Ram Publishers.

Srivastava, H.S (2010). **Conducting Tests and Examinations.** New Delhi: S. Chand & Company Ltd.

UGC (1991). Examination Reform – A Plan of Action, New Delhi.

#### 70122- CURRICULUM AND INSTRUCTION

#### **OBJECTIVES**

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

- ❖ Acquire knowledge about the basic principles of Curriculum development
- Understand the importance of Instructional objectives
- ❖ Develop skill in Instructional management
- \* Realise the need for innovation in Teaching-learning Process
- Understand the concept of evaluation
- ❖ Familiarise various Evaluation Techniques
- ❖ Acquire knowledge in Recent Trends
- Understand the way of Curriculum Transaction

#### **UNIT I Curriculum**

Meaning of Curriculum

Curriculum and Education

Curriculum and syllabus

Need and importance of Curriculum

Co-curricular and extracurricular activities.

#### **UNIT II Types of Curriculum**

Types of Curriculum- linear type, spiral type, concentric type, pyramidal – Patterns of Curriculum – Subject –centred Activity – centred, Experience – centred.

#### **UNIT III Curriculum Development**

Determinants of Curriculum – Philosophical, sociological, Psychological, Religious, Cultural, Economical, Political - Principles of Curriculum Development Relevance, variety, Utility, Flexibility – NCERT's recommendations with reference to School Education – Steps in Curriculum Development.

## **UNIT IV Instructional Objectives**

Instructional Objectives - Meaning of Instructional Objectives -learning Experience and Evaluation - Bloom's Taxonomy of Instructional Objectives - Cognitive, Affective and Psychomotor domains - Revised version of Bloom's Taxonomy - Anderson.

## **UNIT V Innovations in Teaching-Learning Process-I**

**Individual Instruction** 

programmed Instruction

personalized system of Instruction

Computer Assisted Instruction.

## **UNIT VI Innovations in Teaching-Learning Process-II**

Team teaching

Co-operative Learning

Seminar

Symposium

Panel Discussion

Workshop.

#### **UNIT VII Instructional Management**

Need for Instructional planning – Preparation of Annual plan- Time table – Classroom Management – Role of headmaster – Qualities of Teacher – Job satisfaction of teachers – Teacher Welfare measures.

## **UNIT VIII Evaluation**

Concept and Purpose of Evaluation – basic Principles – tools and techniques of Evaluation – Tests as Tools –Classification of tests – Characteristics of a Good Tool – Validity, Reliability, Objectivity and Usability. Preparation, Administration and Interpretation of Results of Achievement and Diagnostic test.

#### **UNIT IX Evaluation Techniques**

Evaluation – its importance – semester vs Non-Semester Patterns – External Examination: merits and limitations –Continuous Internal assessment: merits and demerits –Criterion referenced and norm referenced Tests- formative and summative Education.

## **UNIT X Student Support Services**

Meaning of Co-curricular and extracurricular activities – Organisation of co-curricular and extracurricular activities - Discipline and freedom – School health programme - Physical Education programme – Guidance and counseling – Principles of guidance and counseling.

#### **UNIT XI Curriculum Transaction-I**

Teaching – Definition – Meaning – Principles of Teaching – Functions of Teaching – Role of a Teacher – Models of Teaching – Characteristics features of Models of teaching – Components of Models of Teaching.

#### **UNIT XII Curriculum Transaction- II**

Glaser's Basic model of teaching

Herbert's model of teaching

Carroll's models of teaching

Classification of model of teaching based on Joyce and Weil.

#### **UNIT XIII Recent Trends - I**

National Policy on Education – Special focus on Teacher education – DTERT, DIETs, BRC – Activity Based Learning (ABL) – Active Learning Methodology (ALM), Advanced Active Learning Methodology (AALM): Overview, Benefits.

#### **UNIT XIV Recent Trends – II**

Trimester system in School Education – Continuous Comprehensive Evaluation in School education (CCE) – Justice Verma Commission on Teacher Education (2012) – SSA, RMSA, Rashtriya Ucchatar Shiksha Abhiyan (RUSA)

#### REFERENCE BOOKS

- 1. Benett, bill J. and Martin, Kenneth (1980). The practice of teaching: A positive start New York: Harper and Row International.
- 2. Bigge, Morris L (1982). Learning Theories for teachers.
- 3. Diana Lapp, Hilay Bender, Stephan Ellewood and Martha John (1975). Teaching and Learning New York. Mac Millan ub.co.Inc.
- 4. Glan Gene V.et.al (1982). School class, size research and policy sage.
- 5. Goodson Iyer (Ed) (1985). curriculum Development and Educational Technology New York: Sterling publication
- 6. Harms Alan Lawn Martin and Roscott William (1975). Curriculum Innovation New York: John willey and sons.
- 7. Haukins J.P Curriculum Development: programme Planning Improvement Chicago: Merrill, Columbus.
- 8. Heywood John (1984). Considering the curriculum during student teaching New York Nicholas Publishing Co.
- 9. Huebner Dwayna (1964). Assessment of the Curriculum New York Bureau of Publication Coloumbia University, teachers College.
- 10. JacobgenD.Etal (1985). Methods of etachingA skilsl approach Toronoto Charles and Meril Publication Company
- 11. Kalra, R.M and Rishi Ram Singh (1987). Curriculum Construction and youth development New Delhi: Sterling

70123A - சிறப்புத் தமிழ்

நோக்கங்கள்:

### மாணவ ஆசிரியர்கள்

- 💠 மொழியின் தோற்றமும் வளர்ச்சியும் பற்றி அறிதல்
- 💠 கலைத்திட்டத்தில் மொழியின் இடத்தினை அறிதல்
- 💠 தமிழ்மொழியின் ஒலி அமைப்பு முறையை அறிதல்
- 💠 இலக்கியக் கழகங்கள் பற்றி அறிதல்
- 💠 தேசியக் கல்விக் குறிக்கோள்களை அறிதல்
- 💠 பள்ளியிதழ்களின் முக்கியத்துவத்தை அறிதல்
- 💠 கவிதை பற்றிய கொள்கைகளை அறிதல்
- 💠 முத்தமிழின் வளர்ச்சியினை முறையோடறிதல்
- 💠 இலக்கியத் திறனாய்வு பற்றி அறிதல்
- 💠 மொழிபெயர்ப்பு மொழிவளர்ச்சிக்குத் துணையாதலையுணர்தல்

## அலகு-1 மொழியின் தோற்றம் - I

மொழியின் பண்புகள் மொழியின் தோற்றக்கொள்கை மொழியின் வளர்ச்சி - தமிழ்மொழி வரலாறு தமிழ் மொழியின் கிளை மொழிக் கொள்கைகள்.

## அலகு-2 மொழியின் தோற்றம் - II

பேச்சு மொழியும் எழுத்து மொழியும்

சிறப்பு மொழி

பண்பு மொழிக்கொள்கை

தமிழ்மொழியின் தனித்தன்மைகள்.

## அலகு-3 கலைத்திட்டத்தில் தாய்மொழி - I

கலைத்திட்டத்தில் தாய்மொழி

தேசிய இலக்குகளுக்கும் கல்வியின் நோக்கங்களுக்குமுள்ள தொடர்பினைக் காணல் கலைத்திட்டததில் தாய்மொழி பெறுமிடம்.

#### அலகு-4 கலைத்திட்டத்தில் தாய்மொழி – II

தேசியக் கல்விக் கொள்கையில் கலைக்கல்வி – கலைத்திட்டத்தின் கோட்பாடுகள் – ஆரம்ப, இடை, உயர்நிலைகளில் தேசியக் கல்வியின் நோக்கம் மற்றும் குறிக்கோள்.

## அலகு- 5 தமிழ் மொழியியல் அமைப்பு

மொழியியல் –ஒலி மொழியாதல் - ஒலிகளின் பிறப்பு – பேச்சுறுப்புகளும் அவற்றின் செயல்பாடுகளும் – தமிழ் மொழியின் அமைப்பு – அடைப்பொலி, உரசொலி, மூக்கொலி, ஆடொலி, மருங்கொலி, ஒலியனியல் – ஒலியன்களை கண்டறியும் கொள்கைகள்.

#### அலகு- 6 இலக்கியக் கழகங்கள்

இலக்கியக் கழகங்கள் – இன்றியமையாமை – அமைக்கும் முறை – பணிகள் – திறன் வளர்ச்சி – செயல்முறை - இடம் பெறத்தக்கவை – நடத்துதல் பயன்.

## அலகு- 7 பள்ளியிதழ்கள்

பள்ளியிதழ்கள் – கையெழுத்துப் பிரதிகள் – அமைப்பு – முறை – பயன் – இதழாசிரியர்கள் – ஆசிரியர் குழு – செயற்குழு – அளவும் அமைப்பும் – நடைமுறை.

## அலகு-8 இயல் தமிழ்

இலக்கிய வகைகள் — கவிதை — மேனாட்டார் மற்றும் தமிழறிஞர் விளக்கம் — கற்பனை — உணர்ச்சி, வடிவம், பாடுபொருள் — உள்ளுறை உவமம் — அணி, இறைச்சி மற்றும் சிறப்பியல்புகள் — புதுக்கவிதை.

#### அலகு-9 இசைத்தமிழ்

இசையும் தமிழும் – மொழிக்கல்வியில் இசை – தொல்காப்பியத்தில் இசைக் கூறுகள் – பக்திப் பாடல்கள், நாட்டுப்புறப் பாடல்கள் – தற்காலக கவிதை வளர்ச்சிக்கு இசையின் பங்களிப்பு.

#### அலகு-10 நாடகத்தமிழ்

நாடகம்: தோற்றம் – சங்ககாலம் முதல் இக்காலம் வரை அமைப்பு –வகைப்பாடு – எழுத்து, வானொலி, வட்டார மொழி, செய்யுள் நாடகங்கள் – நாடக உத்திகள்.

#### அலகு-11 இலக்கியத் திறனாய்வு- I

திறனாய்வின் தோற்றம் — இன்றைய திறனாய்வின் நிலை — திறனாய்வின் வகைகள் — படைப்பு வழித் திறனாய்வு — மரபு வழித் திறனாய்வு — முருகியல் திறனாய்வு.

## அலகு-12 இலக்கியத் திறனாய்வு- II

விளக்க முறைத் திறனாய்வு — மதிப்பீட்டு முறைத் திறனாய்வு — வரலாற்று முறைத் திறனாய்வு — ஒப்பீட்டு முறைத் திறனாய்வு — பாராட்டு முறைத் திறனாய்வு — திறனாய்வாளரின் தகுதிகள்.

## அலகு-13 தமிழ் மொழியின் வளர்ச்சி நிலை - I

கணிப்பொறியும் தமிழும் – பல்லூடகமும் தமிழ் கற்பித்தலும் –மொழிபெயர்ப்பு – மொழிவளர்ச்சியில் மொழிபெயர்ப்பின் பங்கு..

## அலகு-14 தமிழ் மொழியின் வளர்ச்சி நிலை - II

தமிழ் இணையம் – தமிழ் ஆட்சிமொழியாவதில் ஏற்படும் சிக்கல்கள் – நீக்கும் வழிமுறைகள் – செம்மொழித்தமிழ்

#### செயல்முறைப் பயிற்சிகள்

- முன்னறிவிப்பில்லாச் சொற்பொழிவுகள்
- 🕨 ்கற்பித்தல் பொருள் தொடர்பான துணைக்கருவிகளைத் தயாரித்தல்
- கையெழுத்து இதழ் தயாரித்தல்
- வினாவங்கி தயாரித்தல்
- கருத்தரங்கம் நடத்துதல்

#### பார்வை நூல்கள்:

- 1. கணபதி .வி. (2005) ''நற்றமிழ் கற்பிக்கும் முறைகள் '' பகுதி —II சென்னை சாந்தா பப்ளி'ர்ஸ்.
- 2. கணபதி.வி. (2005) "நற்றமிழ் கற்பிக்கும் முறைகள் " பகுதி -I சென்னை சாந்தா பப்ளி'ர்ஸ்.
- 3. முனைவர் முத்துசண்முகம் (1988), "இக்கால மொழியியல்" கழக வெளியீடு
- 4. முனைவர் முவ. (1988) "மொழிவரலாறு" கழக வெளியீடு
- 5. முனைவர் எஸ் ஸ்ரீகுமார் (2002) "மொழியும் சமூகமும்" செண்பகா பதிப்பகம் தி.நகர் சென்னை -17.
- 6. முனைவர் சேதுமணியன் (1990) "மொழிபெயர்ப்புக் கோட்பாடுகளும் உத்திகளும்" செண்பகம் வெளியீடு மதுரை
- 7. முனைவர் ந. சுப்பு ரெட்டியர் (2005) "தமிழ் பயிற்றுமுறை" மாணிக்கவாசகர் பதிப்பகம் சிதம்பரம்
- 8. கணபதி .வி. (2005) ''நற்றமிழ் கற்பிக்கும் முறைகள் ''சென்னை. சாந்தா பப்ளி'ர்ஸ்.
- 9. முனைவர் மு.வ (1996) "தமிழ் இலக்கிய வரலாறு" சாகித்திய அகாடமி புதுதில்லி

- 10. முனைவர் இ.பா வேணுகோபால் (2006) பைந்தமிழ் கற்பிக்கும் முறை சாரதா பதிப்பகம் சென்னை.
- 11. முனைவர் சு. சக்திவேல் (1996) "தமிழ் மொழிவரலாறு" மணிவாகர் பதிப்பகம் சென்னை
- 12. முனைவர் மு. கோவிந்தராஜன் "மொழித்திறன்களும் சில சிக்கல்களும" தேன்மொழிபதிப்பகம் சென்னை
- 13. முனைவர் வி. கருணாகரன் "மொழிவளர்ச்சி"

## 70123 B- TEACHING OF SPECIAL ENGLISH

#### **OBJECTIVES**

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

- ❖ acquire knowledge of the sound system of English and to familiarize them with the appropriate terminology, to describe the sounds in English.
- understand the connections of English speech and to acquire good pronunciation and fluency of speech
- ❖ get familiarized with the syllabi related to High School and Higher Secondary classes.
- acquire a working knowledge of the grammatical terminology and grammatical system in English

## **UNIT I Phonetics of English-I**

Elements of English language

Phonology

Morphology,

Lexis grammar

The individual sounds – Place of articulation.

#### **UNIT II Phonetics of English- II**

The concept of the Phoneme and the Allophone

Strong and weak forms

Word Stress

Phonetic Transcription.

## **UNIT III Fluency**

Use of conventional formulae – Describing and interpreting picture, tables, graphs, maps, etc – Various concepts and ways in which they are expressed – construction – suggestion – prohibition – permission – probability – likelihood – possibility – obligation – necessity for fluency – concession – Oral drills – Repetition drills – Mechanical drills – Substitution drills.

#### **UNIT IV Advanced Grammar-I**

The Noun phrase

The Verb phrase

Tense forms

Auxiliaries

Types of Sentence

Clauses – Sentence pattern – Active and Passive voice.

#### **UNIT V Advanced Grammar- II**

Direct and Indirect speech

Question forms

Analysis and classification of grammatical errors.

#### **UNIT VI Lexis**

Word formation – Affixation – Conversion – Compounding – Clipping – Port Manteau – Onomatopoeia – Loan words – other minor devices – Patterns of spelling – Phrasal verbs and prepositional phrases – Sentence connectors – Devices for cohesion and coherence.

#### **UNIT VII Language Acquisition Research-I**

First Language acquisition – Behaviourism and Second Language Learning – Errors and Learning Strategies – Causes for difference amoung learners.

#### **UNIT VIII Language Acquisition Research- II**

Models of second language learning – As Creative Construction – As Acculturation – As Elaboration of a Simple Code – As a form of Skill Learning – As a form of Social Learning – Subconscious and Conscious aspects of Language Learning.

#### **UNIT IX Teaching Vocabulary**

Nature of words – Types of vocabulary – Active vocabulary – Passive vocabulary – Expansion of vocabulary – Selection and grading of vocabulary – Strategies to develop vocabulary.

## **UNIT X Types of Courses and Stylistics**

English for Global Purpose – English for Specific Purpose – Remedial English course – The English Reader – Intensive, Extensive and Supplementary – Types of Deviation – Redundancy in Poetry – Rhetorical Question – Apostrophe – Simile and Metaphor.

#### **UNIT XI Reference and Study Skills**

Practice in the Intensive and Extensive Reading – Practice in the Efficient use of the Text Books and Library books – Study skills – note-taking, note-making, summarizing and paraphrasing – Reference skills – library – dictionaries – thesaurus – encyclopedia – bibliography – Annotated Bibliography.

## **UNIT XII Composition-I**

Types of Composition – Controlled – Guided – Free – Kinds of composition – Letter writing – Formal – Informal – Business letters – Paragraph writing – Essay writing – Précis writing – Expansion of proverb.

#### **UNIT XIII Composition- II**

Developing stories from outline – Summarizing Abstracting – Translation – Comprehension – Oral composition – Pair work – Mixed ability grouping – Correction of Composition exercise – correction symbols.

## **UNIT XIV Language Curriculum**

Principles of Curriculum construction – Limitations in the existing school English language curriculum – Qualities of a good English language text book – Unity in Writing – Language as Creative Construction – Language as a form of Social Learning.

#### REFERENCE BOOKS

- 1. Francis Soundararaj, F. (1995). Teaching Spoken English and Communication Skills.Chennai:
- 2. Joyce., & Well., (2004). Models of Teaching. U.K: Prentice hall of India.
- 3. Kohli, A. L. (2006). Techniques of Teaching English. New Delhi: Dhanpat Rai pub.co
- 4. Mangal, S. k., & Mangal, S. (2005). Essentials of Educational Technology and Management. Meerut: loyal book depot.
- 5. Sachdeva, M. S.(2003). A new approach to teaching of English in India. New Delhi: Tandon Publications.

#### 70123 C - TEACHING OF MATHEMATICS

#### **OBJECTIVES**

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

- Understand the nature of Mathematics
- ❖ Analyse the objectives, aims and values of Teaching Mathematics
- Comprehend the steps in Curriculum designing
- ❖ Maths the mathematic concepts in the school level
- ❖ Become aware of and acquire expertise in production of materials
- ❖ Acquire skill in teaching mathematics through several teaching methods and techniques
- ❖ Practice various steps in teaching for problem solving
- ❖ Gain competence in assessing the performance of students through formative and summative evaluation.
- ❖ Acquire knowledge of several learning resources in Mathematics
- ❖ Acquire skill in planning for Teaching Mathematics
- ❖ Gain knowledge of several mathematical organisation for professional advancement

## **UNIT I Nature of Mathematics**

Definition of Mathematics – Objectivity, symbolism, Abstractness, logical structure, structuralism and formalism. History of Mathematics – Its importance for a teacher.

#### **UNIT II Aims and Objectives**

Aims of teaching Mathematics – practical, disciplinary, cultural, social –values of Mathematics for a common and advanced learner taxonomy of Objectives – Bloom & Anderson.

## **UNIT III Mathematics Curriculum**

Principles of Curriculum

Designing curriculum

Modern trends

Comparison of different curricula in Mathematics of Various steams.

## UNIT IV Methods and Strategies - I

Developing a Mathematical concept

Expository and discovery teaching Group

Cooperative and collaborative strategies.

## **UNIT V Methods and Strategies - II**

Provisions for heterogeneous classroom

Special children and teaching of Mathematics

Active learning

Tiger methods

Constructivism.

## **UNIT VI Teaching for Problem Solving**

**Definition of Problem** 

Polya's steps in problem solving

Various kinds of proof

Inductive and deductive method

Creative learning and teaching.

## **UNIT VII Learning Resources and Material Production - I**

Classroom

Library

Laboratory

Low- cost teaching materials.

## **UNIT VIII Learning Resources and Material Production - II**

Technology

Web based learning

Interactive board,

Gco board Sketchpad etc.

## **UNIT IX Planning for Teaching- I**

Lesson Plan – importance of Lesson plan

Preparation of lessons

Characteristics features of lesson plan

Model lesson plan.

## **UNIT X Planning for Teaching- II**

Unit plan- importance of unit plan

Characteristics features of unit plan

Worksheets Unit plan

Preparation of resource units.

# **UNIT XI Assessment and Evaluation -I**

Purpose and programmes

NRT & CRT

Teacher made achievement test

Preparation of blueprint.

#### **UNIT XII Assessment and Evaluation -II**

Writing items

Preparing key & marking scheme

Diagnostics tests

Preparation suggesting remedial teaching.

# **UNIT XIII Teaching for Permanence**

Drill

Review and Revision

**Motivation Rationalization** 

Concretization, correlation,

Individualized Programmes, Home assignments.

# **UNIT XIV Teachers and Professional Development**

Mathematics teachers, participations in organizational activities – seminars –Affiliating to AMTI, NCTM – How to play a role in Mathematical Olympiads –Contribution to journals and Magazines.

- 1. Ball W.W.K A short History of Mathematics
- 2. Bertrand Russell, Principles of Mathematics George and Allen
- 3. Bhimsankaran C.V Mathematics Education Book field Centre Bombay
- 4. Bulter and Wren Teaching of Secondary Mathematics Mc Graw Hill Company NewYork.

- 5. Cooney, Davis, Hendenar Dynamics of teaching Secondary School Mathematics Houghton Mifflin Company Boston.
- 6. Courant and Robins What is mathematics? OUP
- 7. Cundy, Martyn H and Rollett A.P Mathematical Models Oxford, London.
- 8. Devies R. Teaching of Mathematics Addison Wesley Press Cambridge.
- 9. E.T Bell Mathematics, Queen and Servant of science, Mc Grahill Book Company, NewYork.
- 10. Fletcher F.G Some lessions in mathematics OUP.
- 11. Hogben Lancelot, Mathematics for the Million George Allen and Unwin Ltd., London.
- 12. Joseph Crescimbeni teaching of New Mathematics Parker publishing Co. New York.
- 13. NCERT Brochure on themes relating to Mathematics Education.
- 14. NCTMS year Books
- 15. Siddhu R.S teaching of Secondary Mathematics Sterling publishers 21 S.M.S.G Books Yale University

# 70123 D -TEACHING OF SCIENCE

# **OBJECTIVES**

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

- understand the nature and scope of Science
- \* know the aims and objectives of teaching science
- understand the various teaching strategies in science
- develop a theoretical and practical understanding of the various methods and techniques of teaching science and the importance of self-learning devices
- \* acquiring skills relating to planning their lessons and presenting them effectively
- understand the criteria in selecting a good textbook and to evaluate a Science textbook.
- ❖ understand the ICT and give them practice in the use of Audio-visual aids
- understand the principles of curriculum construction and the organization of subject matter
- understand the techniques of evaluating science teaching and to construct achievement test
- \* acquire knowledge to understand the pupil's individual differences
- be aware of the recent trends in science education

# **UNIT I Nature and Scope of Science**

Nature and Scope of Science-Science as a product and a process – a body of knowledge (Empirical knowledge, Theoretical knowledge-facts, concepts, hypotheses, theory, principle, law)-a way of investigation-a way of thinking-Inter disciplinary approach-New developments-Implications- Globalization and science

## **UNIT II Aims and Objectives of Teaching Science**

Aims and Objectives of teaching Science-General and Specific Objectives of teaching Sciences-Bloom's Taxonomy of Educational Objectives (Cognitive, Affective and Psychomotor)-Aims and Objectives of teaching Science at different levels-Primary, Secondary, Higher Secondary.

# **UNIT III Strategies for Teaching Science - I**

Criteria for selecting a method of teaching Science: Level of the class, size of the class, time availability and subject matter-Methods of Teaching Science-General Methods: Heuristic Approach, Historical and Biographical Approaches.

## **UNIT IV Strategies for Teaching Science - II**

Lecture method, Lecture cum Demonstration Method, Individual Practical Method, Analytic and Synthetic Method, Scientific Method, Project Method.

# UNIT V Micro Teaching / Unit Planning / Lesson Planning

Microteaching and its scope-microteaching cycle-Relevant skills in Micro teaching-Content analysis-developing Unit Plan-steps in Unit Planning-characteristics of a good Unit Plan-Lesson Planning-Essential features of Lesson Planning and their importance-Steps in Lesson Planning (Herbartian steps)-Preparing Lesson Plans-Distinguishing Lesson Plan and Unit Plan

## **UNIT VI Learning Resource in Science-I**

Science Laboratory-Structure and Design-Organization and Maintenance of Science Laboratory-maintenance of Registers-Storage of Chemicals-Organization of Practical Work.

# **UNIT VII Learning Resource in Science-II**

Accidents and First Aids-Improvisation of Apparatus. Qualities of a good Science textbook-use of textbooks inside and outside the classroom-Criteria for evaluation of Science textbooks.

# **UNIT VIII Information and Communication Technology in Science Education**

Classification of Audio Visual Aids (Projected and Non-projected)-their importance-Principles and use of Hardware: Film strip cum Slide Projector, Overhead Projector, Motion Picture Projector, Radio, TV, CCTV, Tape Recorder, principles and use of Software: Objects, specimens, slides, transparencies, CD, Audio and Video Tapes-Educational Broadcasts: Radio and T.V. lessons-Programmed Learning-Power Point-use of Internet in teaching Science -E-learning.

# **UNIT IX Curriculum Reforms in School Science**

Curriculum-Principles of curriculum construction-Organization of content matter-Critical evaluation of Tamil Nadu higher secondary school Science Curriculum-Curriculum Improvement Projects in India-NCERT and Abroad-CHEM Study, PSSC, Biological Science Curriculum Study(BSCS), Nuffield-recent trends in Science curriculum.

# **UNIT X Assessment in Science Learning**

Tests and its types-Achievement tests—Qualities of a good test- Evaluating outcome of Science teaching-Principles of test construction-Blue Print and Question Paper-Item Analysis-Standardizing a test-Diagnostic testing and Remedial teaching.

## **UNIT XI Science Teacher and Teacher Perspectives- I**

Science Teacher - Academic and Professional qualification-Special qualities-In-service training-Classroom Climate: Autocratic, Democratic and Laisez faire pattern.

# **UNIT XII Science Teacher and Teacher Perspectives- II**

Flander's Classroom Interaction Analysis. Problems of Science teaching – Individualized instruction- catering to individual differences – Identification of the gifted and enrichment programs for the Gifted.

#### **UNIT XIII Recent Trends in Science Education-I**

Nano science – Bio-technology – Bio-sensor – Micro biology – Micro-electronics – Environmental Engineering - Equitable Education in Tamil Nadu.

#### **UNIT XIV Recent Trends in Science Education- II**

Activity Based Learning (ABL) – Advanced Learning Methodology (ALM) – Continuous Comprehensive Evaluation (CCE)-Trimester System in Tamil Nadu School Education.

- 1. Carin & Robert Sund, (1989). Teaching Modern Science (Fifth Edition), Merill Publishing Co., U.S.A.
- 2. Edgar Dale, Audio-Visual Methods in Teaching, Revised Edition, Thy Dryden Press, Newyork.
- 3. Jenkins, E.W. (Ed.) (1997). Innovations in Science and Technology Education, Vol. VI, UNESCO, Paris.
- 4. Heiss, Obourn & Hoffman (1985). Modern Science in Secondary Schools, Sterling.
- 5. Nair, C.P.S. (1971). Teaching of Science in our Schools, Sulthan Chand & Co. (Pvt.) Limited
- 6. Pandey, (2003). Major Issues in Science Teaching, Sumit Publications, New Delhi.
- 7. Patton, M.O. (1980). Qualitative Evaluation Methods, Sage Publications, India.
- 8. Sharma, P.C. (2006). Modern Science Teaching, Dhanpat Rai Publications, New Delhi.
- 9. Sharma, R.C. (1985). Modern Science Teaching, Dhanpat Rai and Sons.
- 10. Siddifit Siddiqi, (1985). Teaching of Science Today and Tomorrow, Doals House.
- 11. Yadav, M.S. (2003). Teaching of Science, Amol Publications.

# 70123 E - TEACHING OF SOCIAL STUDIES

#### **OBJECTIVES**

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

- understand all topics that he has to teach in Social Studies
- \* know the meaning, aims, objectives and values of Social Studies
- understand the curricular activities pertinent to the teaching of Social Studies
- ❖ apply the modern techniques of teaching for effective teaching
- \* evaluate their students' performance effectively

#### **UNIT I Nature and Structure of Social Studies**

Social Studies – meaning, definition, nature, purpose and characteristics of Social Studies - Different concepts of Social Studies – History – Geography – civics - Scope of Social Studies - Social Studies in daily life - Correlation with other subjects and life.

# **UNIT II Aims and Values of Teaching Social Studies**

Aims, Goals, Objectives of Social Studies at different level Values – practical, cultural, ethical and disciplinary values of Social Studies.

# **UNIT III Unit Planning and Lesson Planning - I**

Instructional objectives in behaviour form

Bloom's Taxonomy of Objectives

Cognitive Domain

Affective Domain

Psychomotor Domain.

# **UNIT IV Unit Planning and Lesson Planning - II**

Advantages of planning a lesson – Steps involved in lesson planning – Specimen lesson plan – Learning Experiences - Evaluation of objectives and learning experiences – Unit planning – Advantages of unit planning – Specimen unit plans – Resource units.

#### **UNIT V Instructional Methods - I**

Lecture Method – Discussion Method – Problem Method – Morison's method of teaching for understanding – Source Method – Oral – Recitation, Review, Dill, Story Telling – Inductive and Deductive.

#### **UNIT VI Instructional Methods – II**

Laboratory Method – Role – play and Dramatization – socialized method, small group, panel discussion, buzz session, seminar, symposia and work shop – Team Teaching, supervised study in teaching Social Studies, stories and legends, biography – Dalton plan.

## **UNIT VII Audio-Visual Aids in the Teaching of Social Studies**

Importance of Audio visual Aids – Classification of Audio Visual Aids – Chalk Board – Bulletin Board – Charts – pictures – Graphs – Maps and Globes – Stereo scopes – Motion pictures (silent) of objects, Specimens and Models, auditory Aids, Radio – Audio visual Aids – Television – Sound motion pictures – Dramatization – Field Trips and School journeys – OHP – Epidiascope – Improvised Aids – Computer, LCD.

#### **UNIT VIII Social Studies Curriculum**

Present Social Studies curriculum – modern concept of Social Studies curriculum – principles involved in curriculum construction – Basis for the selection of the content – Chronological Method – Spiral Method – Concentric Method – Topical Method – Individual, Social and National Heads – Theories influencing selection of materials – Doctrine of Natural Tastes – Cultural epoch Theory – Proceeding from the Near to the Remote.

# UNIT IX Human Relationship and Social Studies Teaching- I

National integration and Social Studies Teaching – Meaning or National integration – Factors and Forces standing in the way of national integration – Role of Social Studies in fostering national integration. Need for International Understanding.

# **UNIT X Human Relationship and Social Studies Teaching-II**

Causes of International Dissensions and Conflicts – Nationalism Vs Internationalism – Role of Social Studies in International understanding – Role of UNESCO – Struggle for Tolerance and Peace.

# **UNIT XI Learning Strategies -I**

Assignment – Oral – Written – Map Drawing – Preparation of Charts – Models, Albums and Specimens. Visits to related fields – Temples, Museums, Art Galleries, Exhibitions, collection of specimens – Stamps, coins, etc.

# **UNIT XII Learning Strategies –II**

Reading of books, historical novels, magazines, newspapers and learning from other media. Self – learning materials and using instructional materials. Motion picture, video tapes, radio, software and hardware.

#### **UNIT XIII Evaluation in Social Studies**

Meaning of Evaluation – Importance of Evaluation or Examination – Purpose of Evaluation – Special Objectives of Evaluation in Social Studies – Criteria of Good Examination – Evaluating the Results of Social Studies Instruction.

# **UNIT XIV Utilizing Current Affairs**

Importance of Current Affairs – Purpose of teaching current affairs – Criteria of selecting Current Events – Programme of current affairs – Restriction – Use of Various Learning Activities in Current Affairs programme – Specimen Current Affairs for High classes.

- 1. Aggarwal, J.C. (1982). *Teaching of Social Studies*. New Delhi: Vikas Publishing House Pvt Ltd
- 2. Bining and Bining (1972). *Teaching of Social Studies in Secondary Schools*. New York: McGraw Hill Book Co.
- 3. Heller, F. (1986). The use and abuse of Social Sciences. London: Sage Publications.
- 4. James Fleming: *The Teaching of Social Studies in Secondary School*. Longman Green and Co., London.
- 5. Joyce, B. & Weil, M. (1979). *Models of Teaching*. Prentice Hall Inc., New Jersey.
- 6. Kochhar, S.K. (1988). *The Teaching of Social Studies*. New Delhi: Sterling Publishers Pvt.Ltd.
- 7. Kochhar, S.K. (1986). *Methods and Techniques of Teaching*. New Delhi: Sterling Publishers Pvt. Ltd.
- 8. Marsh, D.A. (Ed.) (1965). The Social Sciences. London: Roultedge and Kegan Paul.

# 70123 F -TEACHING OF COMMERCE

#### **OBJECTIVES**

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

- ❖ acquire knowledge of meaning, definition, nature and scope of Commerce and Accountancy
- understand the aims and objectives of teaching Commerce and Accountancy
- develop skills in the preparation of lesson plan
- understand the principles of curriculum construction and organization of the subject matter
- ❖ find out the resources available for learning Commerce and Accountancy
- apply the knowledge in analyzing, selecting and adopting the suitable methods and aids for the purpose of teaching Commerce and Accountancy
- understand the classroom management techniques
- develop competency in evaluation techniques applicable to Commerce

## **UNIT I Commerce and Accountancy**

Commerce and Accountancy – Meaning – Definition – Nature – Scope – Branches of Commerce: Trade, Transport, Banking, Insurance, Warehousing, Advertising, Communication – e-commerce – Correlation of Commerce and Accountancy with other subjects – Need for Commerce and Accountancy education – Commerce Education in developing and developed countries – Significance of Commerce in Indian schools.

# **UNIT II Aims and Objectives of Commerce Education**

Definition of Aims and Objectives – Difference between aims and objectives – Criteria for the selection of aims and objectives – Aims and Objectives of Commerce education – Values of teaching Commerce and Accountancy.

# **UNIT III Bloom's Taxonomy**

Bloom's Taxonomy of educational objectives: Cognitive, Affective and Psychomotor domains – Writing objectives in Behavioural terms.

# **UNIT IV Curriculum Designing - I**

Meaning of curriculum – Relationship between syllabus and curriculum – Characteristics of curriculum – Types of curriculum – Principles for the determination of Commerce curriculum – Organization of subject matter – unit – topical – concentric – logical and psychological.

# **UNIT V Curriculum Designing – II**

Secondary Education Commission on Curriculum – Defects of the present Commerce Curriculum– Suggestions for removing the defects of curriculum. Critical study of the curriculum in Commerce and Accountancy at higher secondary school level in Tamilnadu

## **UNIT VI Lesson Planning and Unit Planning**

Definition of Lesson Plan – Types of Lesson Plan – Steps of Lesson Planning – Advantages of Lesson Planning – Limitations of Lesson Planning – Precautions while preparing Lesson Planning – Model Lesson Plan – Various approaches to Lesson Planning – Evaluation criteria of Lesson Plan – Unit Plan – Steps in Unit Plan – Advantages – Model Unit Plan.

## **UNIT VII Resources of Learning**

Textbook – Meaning of text book – Definition of text book – Qualities of a text book – Need and importance of text books – Use of text books – Criteria for the evaluation of text books – Suggestions for improvement in text books – Reference books – Business journals – News papers – Research journals and reports – e-resources – Community resources in the teaching and learning of Commerce and Accountancy.

# **UNIT VIII Methods of Teaching Commerce and Accountancy - I**

Lecture method – Demonstration method – Discussion method – Problem solving method – Project method – Inductive method – Deductive method – case study –Socialized recitation methods – Team Teaching – Seminar – Symposium – Workshop – Debate. Panel discussion – Group discussion – Tutorial method – Assignment method –Students motivated technique – Supervised study – Programmed learning – Computer Aided Instruction (CAI) – Brainstorming – Heuristic method-simulation and role playing.

# **UNIT IX Methods of Teaching Commerce and Accountancy –II**

Panel discussion – Group discussion – Tutorial method – Assignment method – Students motivated technique – Supervised study – Programmed learning – Computer Aided Instruction (CAI) – Brainstorming – Heuristic method-simulation and role playing.

# **UNIT X Aids for Teaching Commerce**

Teaching aids – Meaning – Definition – Importance – classifications – Characteristics of Audio-Visual aids – Difficulties in the use of Audio-Visual aids – Precautions to be taken while selecting A-V aids – Important teaching equipments and materials for commerce teaching: Text-book – Pictures – Charts – Map – Graph – Periodicals and Journals – Black board – Bulletin board – Flannel board – Slide and film strip – Model – Specimen copy – Over-head Projector – Radio – Television – Computer.

#### **UNIT XI Commerce Teacher-I**

Commerce teacher – Qualities of a Commerce teacher: Individual qualities, Professional qualities and Social qualities – Professional growth of commerce – pre-service and in-service programme – Responsibilities of a commerce teacher – Problems faced by commerce teachers.

#### **UNIT XII Commerce Teacher-II**

Teacher's diary – Records and registers to be maintained by commerce teacher – Micro-Teaching: Meaning, Definition – Micro-Teaching cycle – Advantages – Skill of Stimulus Variation – Skill of Reinforcement – Skill of Questioning.

# **UNIT XIII Classroom Management**

Classroom management – Factors influencing classroom management – Class room interaction analysis – Class room climate – Types of teachers based on leadership styles:

Teacher dominated pattern – Laissez faire pattern – Democratically planned pattern – Significance of the classroom climate – Flanders Interaction Analysis Category system.

# **UNIT XIV Evaluation Approach in Commerce**

Evaluation: Meaning – Aim – Difference among: Test, Measurement and Evaluation – Difference between examination and Evaluation – Difference between Evaluation and Measurement – Types of evaluation: Formative, Summative, Norm –referenced and Criterion referenced – Tests: Achievement and Diagnostic – Forms of test items – Characteristics of a good test – Blue print – Test Construction – Item analysis.

- 1. Chauhan, S. S. (2008). *Innovations in Teaching Learning Process*. UP: Vikas Publishing House Pvt Ltd.
- 2. Dhand, H. (2009). Techniques of Teaching. New Delhi: APH Publishing Corporation.
- 3. Kochhar S. K. (1992). *Methods and techniques of teaching*. New Delhi: Sterling Publishers Private Limited.
- 4. Kumar, K. L. (1996). *Educational technology*. New Delhi: New Age International Publishers.
- 5. Muthumanickam, R. (2004). *Educational objectives for effective planning and teaching*. Chidambaram: Cyber land Publisher.
- 6. Passi, B. K. (1976). *Becoming a better teacher: Micro teaching approach*. Ahemedabad: Sahitya Mudranalaya.
- 7. Rao, Seema. (2007). Teaching of Commerce. NewDelhi: Anmol Publication.
- 8. Sanjeev Tomar. (2008). Teaching of Commerce. Agra: Vinod Pustak Mandir.
- 9. Sharma, R. N. (2008). *Principles and Techniques of Education*. Delhi: Surjeet Publications.
- 10. Sharma, R. A. (2008). *Technological foundation of education*. Meerut: R.Lall Books Depot.
- 11. Siddiqui, M.H. (2009). *Techniques of Classroom Teaching*. New Delhi: APH Publishing Corporation.
- 12. Singh, Y. K. (2009). Teaching of Commerce. New Delhi: APH Publishing Corporation.

# 70123 G - TEACHING OF ECONOMICS

#### **OBJECTIVES**

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

- \* acquire knowledge of the nature and scope of Economics
- understand the aims, objectives and value of discipline of Economics
- \* acquire skills to write lesson plan for lessons in Economics
- understand the principles of curriculum construction and organization of subject matter in Economics
- \* know the sources available for teaching Economics
- \* develop effective instructional skills for effective delivery of the subject matter
- ❖ develop the ability in preparing and use of A.V. aids
- understand the evaluation techniques and interpretation of scores
- \* realize the qualities of Economics teacher and importance of in-service programme
- ❖ understand the recent research trends in Economics education

#### **UNIT I Economics Education**

Economic education – Meaning – Scope of Economics education – Significance of learning and teaching Economics – Nature of Economics – Correlation of Economics with other subjects: Commerce, Civics, Mathematics, Statistics – New Economic Policy aspects globalization, liberalization and privatization.

# UNIT II Aims and Objectives of Economics Education - I

Definition of Aims and Objectives – Difference between aims and objectives – Criteria for the selection of aims and objectives – Aims and Objectives of Economics education – Values of teaching Economics.

# **UNIT III Aims and Objectives of Economics Education – II**

Objectives of teaching economics based on Bloom's taxonomy: Cognitive, Affective and Psychomotor domains – Writing objectives in Behavioral terms.

# **UNIT IV Lesson Planning**

Lesson Plan: Definition – Advantages of Lesson Planning – Writing instructional objectives – Developing lesson plans – Steps involved in Lesson Planning – Principles of lesson planning – Model lesson plan.

# **UNIT V Unit Planning**

Unit plan

Steps involved in Unit Plan

Advantages of Unit Plan

Model Unit Plan.

## **UNIT VI Curriculum Design - I**

Meaning of curriculum – Difference between syllabus and curriculum – Characteristics of curriculum – Curriculum construction in Economics – Principles of curriculum construction – Criteria of selection of content matter..

# **UNIT VII Curriculum Design – II**

Organization of subject matter – unit – topical – concentric – logical and psychological. Critical Study of the Curriculum in Economics at higher secondary school level in Tamilnadu.

# **UNIT VIII Resources for Teaching Economics**

Textbook – Meaning of text book – Definition of text book – Qualities of a text book – Reference books – News papers – Information and Communication Technology (ICT) resources in teaching economics – Community resources – Excursions- Field trips – Library.

# **UNIT IX Methods of Teaching Economics**

Lecture method – Demonstration method – Discussion method – Problem solving method – Project method – Inductive method – Deductive method – Micro teaching technique – Use of modern techniques in teaching Economics – Seminar – Symposium – Workshop – Team Teaching – Brain storming – Supervised study and Tutorial system – Programmed learning – techniques: Linear and branching – Computer Aided Instruction (CAI).

#### **UNIT X Instructional Aids for Economics**

Instructional aids – Meaning – Definition – Importance of instructional media in relation to teaching economics – Criteria for the selection of instructional media – elearning – Epidiascope – Overhead projector-blackboard – Bulletin board – Flannel board – charts – Maps – Graphs – Diagrams – Pictures – Power point presentation – Slide and film strip – Model – Specimen copy –Radio – Television – Computer.

# **UNIT XI Evaluation Approach in Economics**

Evaluation – Nature and scope – Difference between Measurement and Evaluation – Characteristics of a good test in Economics: Reliability, Validity and Objectivity – Item analysis – Different types of objective tests – Types of evaluation: Formative, Summative, Norm –referenced and Criterion referenced – Achievement Test – Blue Print – Test Construction.

#### **UNIT XII Economics Teacher**

Economics teacher – academic, professional qualification and professional growth – Qualities of a good Economic teacher – in-service education – Problems of Economics teaching in urban and rural areas.

#### **UNIT XIII Micro Teaching**

Micro-Teaching: Meaning, Definition – Micro-Teaching cycle – Advantages – Skill of Stimulus Variation – Skill of Reinforcement – Skill of Questioning.

#### **UNIT XIV Research in Economics Education**

Research – Meaning – Definition – Research in Economics Education – Characteristics features of research in Economics Education – Problem selection – Survey method – Experimental method – Importance of review of related literature in Economics – Recent trends in Research in Economics Education – Utilization ICT resources in research.

- 1. Aggarwal, J. C. (2005). Essentials of education technology: Teaching learning innovations in education. New Delhi: Vikas Publishers.
- 2. Aggarwal, J. C. (2005). Teaching of economics. Agra: Vinod Pustak Mandir.
- 3. Chauhan, S. S. (2008). Innovations in Teaching Learning Process. UP: Vikas Publishing House Pvt Ltd.
- 4. Dhand, H. (2009). Techniques of Teaching. New Delhi: APH Publishing Corporation.
- 5. Joyce., & Well., (2004). Models of teaching. U.K: Prentice hall of India.
- 6. Karthick, G. S. (2004). Teaching of economics. New Delhi: Discovery publication house.
- 7. Kumar, J. J. (2001). Encyclopedia of teaching of economics.(Vol.1-3). New Delhi: Anmol Publishers.
- 8. Kumar, K. L. (1997). Educational technologies. New Delhi: New Age Publishers.
- 9. Mangal, S. k., & Mangal, S. (2005). Essentials of educational technology and management. Meerut: Loyal Book Depot.
- 10. Passi, B. K. (1976). Becoming a better teacher: Micro teaching approach. Ahemedabad: Sahitya Mudranalaya.
- 11. Patil, V. T. (2005). Virtual education: Dimension of educational resources. New Delhi: Authors press.
- 12. Singh, Y. K. (2009). Teaching Practice. New Delhi: APH Publishing Corporation.
- 13. Sharma, R. N. (2008). Principles and Techniques of Education. Delhi: Surject Publications.
- 14. Krishnamurthy, R. (1997). Library management. New Delhi : Common Wealth Publishers.
- 15. Sharma, K., & Tuteja, T. (1995). Teaching of economics. New Delhi: Common Wealth Publishers.
- 12. NCERT (1978). Effective Science of School Curriculum: An Introduction New Delhi: NCERT.
- 13. NCERT (1986). National Curriculum for Primary and Secondary Education: a Framework New Delhi NCERT.
- 14. NCERT (1980). School Curriculum Some problems and Issues Report of the 1<sup>st</sup> meeting of the Advisory committee for School curriculum (April 22-23, 1980). New Delhi: NCERT.
- 15. NCERT(1984). Curriculum Load at the school level–A quick appraisal New Delhi:NCERT

# 70124 Practical – II General Practicum Components 200 Marks (8 credits)

S. No.	Subjects	Maximum Marks	Credits	
1.	Yoga Education	50	2	
2.	Language Across the curriculum	50	2	
3.	Inclusive Education	50	2	
4.	Gender Studies	50	2	

# 70131- CRITICAL UNDERSTANDING OF ICT

#### **OBJECTIVES**

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

- understand the meaning of the term 'ICT'
- ❖ acquire knowledge and skills necessary for adapting ICT in teaching-learning
- be familiar with application of ICT in teaching and learning
- ❖ appreciate the role of Information and Communication Technology in Education
- utilising the techniques in designing classroom teaching
- develop positive attitude towards the application of Information and Communication Technology

### UNIT -I ICT and School Education- I

**ICT-Meaning** 

Definition-Need for ICT in Education

**Evolution of Information Technology** 

Information and Communication Technology in School Education.

# **UNIT -II ICT and School Education- II**

Impact of ICT on educational System

Impact of ICT on Curriculum

Impact of ICT on Teaching and Learning

ICT as a tool for individualized learning.

#### **Unit-III Communication and Network**

Communication –Meaning –elements of Communication-Barriers of Communication – Effective communication –Types of Communication-Media of Communication-Computer network concept –Definition- Types –LAN, WAN –History of Internet –Use of Search engine -social Network –Concept , definition –Educational use of social network like face book, blog, whatsapp.

# **UNIT-IV** Computer and Learning

Computer as a tutor-Computer as a Tutee-Computer as a teaching Resource –Different forms of Learning through Computers: computer Assisted Instruction (CAI); Modes of CAI: Drill and Practice, Tutorial Instructional games –Computer simulations advantages and limitations of CAI –Computer Managed Instruction (CMI) Computer as a tool for teacher and students.

# **UNIT-V E- Learning- I**

E-Learning –Definition

Importance of E-Learning

**E-Learning Modalities** 

Preconditions of E-Learning

Strategic foundation for E-Learning

Integrating E-learning and Classroom Learning.

# **UNIT-VI E- Learning- II**

Creating your E-learning strategy; Analyzing your current situation, describe your direct situation, set you vision and mission, Gap Analysis, and Building an action plan-limitation of E-learning.

# **UNIT -VII Multimedia and Learning**

Multimedia – Meaning-Definition-Applications of Multimedia – Multimedia classroom environment for learners at school level – Features of Multimedia; Sound effects – Images effect – Animation effect – Video effect.

# **UNIT –VIII Hypermedia**

Hypermedia

Development of Multimedia Courseware for learners at school level

Steps involved in the development

Advantages and limitation of multimedia based courseware

## **UNIT -IX Interactive Multimedia and Learning**

Interactive multimedia – Meaning-Definition –factors influencing learning with interactive multimedia – Principles of Instructional design for multimedia and interactive Multimedia; Split Attention principle , Modality Principle- The Redundancy Principle , the Spatial contiguity Principle, Temporal contiguity principle –Coherence principle – Advantages and limitations of Interactive Multimedia

# **UNIT-X Computer Simulation and Learning**

Computer simulation – Characteristics features of computer simulation – Importance – Interactive computer simulation – Objectives of Interactive Computer simulation - Virtual Science lab at school level – objectives of the Virtual science lab – Advantages and limitations of the virtual science lab.

## **UNIT -XI Web Based Learning**

Web based Learning-Concept –Definition –Online learning for school Learners – Principles of Web based learning -Categories of Web based learning; Asynchronous Format, Synchronous Format, Small Group collaboration –Virtual Campus –Merits and limitations of Web based learning.

#### **UNIT -XII Electronic Portfolios for Teachers and Learners**

Electronic Portfolio –Meaning –Definition –Characteristic features basic equipments of creating E-portfolio –E –Portfolio for teachers and learners –Features of E-Portfolio – Developing an E-portfolio –Advantages of limitations of E-Portfolio.

#### **UNIT-XIII Current Trends in ICT Based Learning**

Virtual classrooms

Meaning- Importance of Virtual classrooms –Role of the teacher

Smart classroom; Concept, Advantages and limitations of Smart classroom – Role of the teacher

# **UNIT- XIV Blog based Learning**

Blogs- concept, Advantages and limitations

Online learning resources

E-Books

E library

MOOC (massive open online courses).

- o Arulsamy.s and Sivakumar.P 2000 'Applications of ICT in Education', Neelkamal publication, Hyderabad.
- Brown, J.W., R.B. and Hercheroad: A.V. Instruction Technology Media and Method. New York: McGraw Hill Book Company, 1977. Chand, Tara: Educational Technology. New Delhi: Anmol Publication, 2002.
- Davis, I.K.: The Management of Learning. London: McGraw Hill Book Company, 1971.
- Dececo, John, P.: Educational Technology: Readings in Programmed Instruction.
   London: Holt Rinehert and Winston, 1964.
- o Jerone, P. L. and Clarence, M. W.: A Guide to Programmed Instruction. J. Wiley and Sons, New York, 1975.
- o Kumar, K.L.: Educational Technology and Conceptual Understanding. New Delhi: New Age Publication, 2001.
- o Mangal, S.K.: Fundamentals of Educational Technology. Ludhiana: Prakash Brothers,1988.
- Mukhopadhyay, M.: Educational Technology Challenging Issue. New Delhi: Sterling Publishers Private Limited, 1980.
- o National Policy on ICT in Education; Ministry of HRD, Government of India.
- Wadi Haddad and Sonia Jurich, "ICT for Education: Potential and Potency," in Technologies for Education: Potentials, Parameters, and Prospects, eds. Wadi Haddad and A. Drexler (Washington, D.C.: Academy for Educational Development), 28-40.

# 70132 - GUIDANCE AND COUNSELLING

#### **OBJECTIVES**

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

- understand the meaning, characteristics, need and principles of guidance and counselling
- describe various types of guidance
- understand the history of guidance in India
- describe various approaches to counselling
- \* know the qualities required for a good counsellor
- develop skills in administering and interpreting testing and non-testing devices in guidance
- develop the counselling skills
- ❖ improve the method of study and remove the weakness in particular subject
- explain the purpose of guidance at primary, middle, secondary and higher secondary school level
- \* discuss the special needs of exceptional children

# **UNIT I Concept of Guidance**

Guidance: Meaning, Definition, Characteristics of guidance, Need of guidance, Objectives of guidance – Principles of guidance – Types of Guidance: Educational, Vocational, Personal, Social, Avocational and Health – Guidance and Teaching – Merits and Limitations of guidance.

# **UNIT II Concept of Counselling**

Counselling: Meaning, Definition, Characteristics of counselling, Need of Counselling – Principles of counselling – Techniques of counseling – Organisation of counseling in schools – Difference between guidance and counselling – Difference between counseling and teaching.

#### **UNIT III Guidance Movement in India**

Origin of guidance – Guidance in India: British period – After independence – Secondary Education Commission – Kothari Commission – Development of vocational guidance – Factors for the development of guidance – Present position of guidance service.

# **UNIT IV Major Approaches to Counselling - I**

Group counselling: Purpose of group counselling - Goals of group counselling - Advantages of group counselling - Directive Counselling - Non-directive counselling: Procedures - Characteristics - Advantages and limitations.

# **UNIT V Major Approaches to Counselling – II**

Individual Counselling : Meaning, Characteristics – Advantages and limitations – Eclectic counselling – Meaning, Nature, Steps, Merits and Limitations.

# **UNIT VI Qualities and Functions of a Counsellor**

Counsellor: Meaning – Qualities of a good counsellor: Personality traits, Training and Development, Academic qualifications, Experience – Role of counsellor – Functions of a counsellor – Professional ethics – Counsellor and Teacher – Counsellor and Counsellee relationship.

# **UNIT VII Testing Devices in Guidance**

Testing devices in guidance

Intelligence test

Aptitude test

Achievement test

Attitude scales

Interest inventory

Personality test

Creativity tests.

# **UNIT VIII Non -Testing Devices in Guidance**

Non-testing devices in guidance: Questionnaire – Observation – Sociometry – Autobiography – Rating Scales – Anecdotal Record – Case study – Cumulative Record – Role of Information and Communication Technology (ICT) in Testing and Non-Testing devices in Guidance.

#### **UNIT IX Theories of Vocational Guidance**

Theories of Vocational Guidance – Ginzberg Theory, Holland's Theory, Super's vocational choice theory – Havighurst theory of vocational choice – Structural theory – Essential aspects of an occupation – Various sources of vocational information.

#### **UNIT X Educational Guidance -I**

Meaning of Educational Guidance – Definition – Characteristics – Need – Objectives of Educational Guidance – Guidance for improvement in the method of study – Removal of weakness in particular subjects.

## **UNIT XI Educational Guidance –II**

Curricular guidance – Definition- Meaning of Curricular guidance- Method of developing good study habits – Recommendation of Education Commission on Educational Guidance.

#### **UNIT XII Guidance Services in Schools - I**

Meaning of school guidance services – Significance – Types of guidance services offered in schools: Orientation service to students – Methods of providing orientation service – Student information service.

# **UNIT XIII Guidance Services in Schools – II**

Counselling service – Placement services – Follow-up services – Persons working in school guidance: Headmaster – Class teacher – School counseller – School Doctor – Planning of Guidance service – Activates at Primary school level, Middle school level, Secondary level and Higher secondary level

# **UNIT XIV Guidance for Exceptional Children**

Guidance for Exceptional Children: Meaning and Types. Guidance for gifted, Backward, Mentally retarded, Orthopaedically handicapped, Visually impaired, Deaf and dumb and Problematic children.

- 1. Aggarwal, J. C. (1991). *Educational, vocational guidance and counselling*. New Delhi: Doabai House.
- 2. Bernad, H. W. and Fullmer, D. F. (1977). *Principles of Guidance* (Second Edition). New York: Crowell.
- 3. Bhatnagar, R. P., and Seema, R. (2003). *Guidance and Counselling in education* and psychology. Meerut: R. Lall Book Depot.
- 4. Chauhan, S.S. (2008). *Principles and Techniques of Guidance*. UP: Vikas Publishing House Pvt. Ltd.
- 5. Cormier, Sherilyn, L. and Hacney, Harold. (1987). *The Professional Counsellor*. New Delhi: Prentice Hall of India Limited.
- 6. Crow, L.D., & Crow, A. (2008). An Introduction to guidance. Delhi:Surjeet Publications.
- 7. Jones, A. J (2008). *Principles of guidance*. (5 ed) Delhi: Surject Publications.
- 8. Kochhar, S. K. (1984). *Guidance and counseling in colleges and universities*. New Delhi: Sterling Publishing Private Limited.
- 9. Meenakshisundaram, A. (2012). *Guidance and counseling* Dindigul: Kavyamala Publishers.
- 10. Nagarajan, K. and Natarajan, S (2012). *Guidance and counselling* Chennai: Ram Publishers.
- 11. Sharma, R.A. (2012). Fundamentals of guidance and counselling. Meerut: R. Lal Book Depot.
- 12. Sharma, R.N. (2008). Vocational Guidance & Counselling. Delhi: Surject Publications.

# 70133 - ENVIRONMENTAL EDUCATION

#### **OBJECTIVES**

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

- understand the concept of Environmental Education
- analyse various Environmental issues
- \* establish relationship between man and environment
- develop positive attitude towards Environmental protection
- understand the Environmental hazards
- develop the skill of managing the environment
- ❖ understand the concept of evaluation in Environmental Education

#### **UNIT I Environment**

Environment-Definition —classification of Environment; i) Physical Environment ii)Biological Environment iii) Social Environment and iv)Psychological Environment — Heredity and Environment — Ecology: Meaning and Definition — Branches of Ecology — Ecosystem — Components of Eco system.

## **UNIT II Environmental Education**

Environmental Education – Definition –characteristic features of Environmental Education – Objectives of Environmental Education – Need for Environmental Education- Scope of Environmental Education- Environmental Science and Environment Education.

#### **UNIT III Environmental Awareness**

**Environmental Awareness** 

**Environmental Education for Teacher Education Programmes** 

Environmental Education in School Curriculum.

#### **UNIT IV Environmental Hazards-I**

Meaning of Environmental Hazards – Categories of Environmental Hazards; i) Natural Hazards – Endogenous hazards and Exogenous hazards ii)Man Induced Hazards – Environmental degradation – Environmental pollution – Types of Pollution – Air Pollution - Sources of Air Pollution – Adverse effects of Air Pollution – Control and Prevention of Air Pollution.

#### **UNIT V Environmental Hazards- II**

Water Pollution – Sources and Adverse effect of Water Pollution – prevention measures – Land and Noise Pollution – Effects of Land and Noise Pollution – Prevention and Control of Land Noise Pollution.

#### **UNIT VI Environmental Issues**

Global Warming – meaning – issues related Global Warming – Green House Effect – Green House gases – Acid Rain – Problems related to Acid Rain – Ozone layer depletion – Effect of depletion of Ozone layer – Bio-diversity – Meaning – Threats to bio-diversity.

#### **UNIT VII Environmental Issues in India**

Major Environmental problems of India – Environmental conservation Act –Wild life (protection) Act – Environmental Movements in India – Chipko Movement – Silent Valley Movement , Narmada Project.

#### **UNIT VIII Environmental Education and Teacher Education**

Need for Environmental Education in teacher Education Programme – NCERT and Environmental Education – teaching strategies for Environmental Education – Group discussion – Project Work –Field Trips – Co curricular activities in Environmental Education – Advantages and limitations of different strategies for teaching Environmental Education.

## **UNIT IX Man and Environment**

Interaction between man and Environment – Human adaptation to Environment – Human Population and Environment – Population Education – Population and its effects on Environment-Impact of Science and Technology on Environment – Industrial growth and its environmental impacts.

#### **UNIT X ICT and Environmental Education - I**

ICT- Meaning –Role of ICT on Environmental Education – Instructional Media for Environmental Education – Educational Radio Programme in Environmental Education – Community radio.

#### **UNIT XI ICT and Environmental Education – II**

Educational T.V-Satellite Instructional Television Experiment (SITE)-Satellite based communication – Utilization of E-resources in Environmental Education –CDs-E books E-Journals –E- learning.

# **UNIT XII Environmental Management**

Environmental Management – meaning for Environmental Management – Characteristics of Environmental Management – Approaches of Environmental Management; i) preservative approaches ii. Conservative approaches – social forest – Water Management – Rain water Harvest – surface water management.

#### **UNIT XIII Evaluation of Environmental Education -I**

Concept of Evaluation-Definition of Evaluation-Importance of Evaluation-Measurement and Evaluation in Environmental Education –Measurement in Physical Science and in Behavioural Science.

#### UNIT XIV Evaluation of Environmental Education –II

Techniques of Evaluation: Estimation of Awareness in Environmental Education, Achievement test in Environmental Education – Attitude Scale and Value Scale: Construction, Advantages and Limitations

- 1. Begon, WD and Mortimer, M (1981): Population Ecology, Blackwell Oxford
- 2. Botkin, DB and Keller, E.A (1982): Environmental Studies, C.E Merrill Company.
- 3. Dassaman R.D (1976): Environmental Conservation, Wiley, new York.
- 4. Deshbandhu and G.Berberet (1987) Environmental Education for Conservation and Development Indian Env Society, New Delhi.
- 5. Det Wyler T.R (1971) Man's Impact Environmental, Mc Graw –Hill New York.
- 6. Kendeigh S.C (1974): Ecology with Special Reference to Animal and Man, prentice

  -Hall New Jersey
- 7. Komondy E.J (1969) Concept of Ecology, prentice Hall New Serscy
- 8. Krishnamacharyulu and Reddy GS. (2005): Environmental Education, Neelkamal Publication, Hyderabad.
- 9. LohaniB.N (1984) Environmental Quality Control, South Asian Publishers, New Delhi.
- 10. Nagarajan K and Sivakumar .P , Environmental Education Ram Publishers, Chennai.
- 11. Odum, E.P (1979) Fundamentals of Ecology, Saunders, Philadelphia
- 12. Odum, EP (1983): Basic Ecology, Holt Saunders Intle ed., Japan.
- 13. Rao M.Sitaram (1987) Introduction to Social Foresty, oxford & IBH, pp.87.

- 14. Sexena A.B (1986) Environmental Education, national Psychological Corporation Agra pp.191.
- 15. Sharma PD (1990) Ecology and Environment, Rastogi Publishers, meerut (U.P)
- 16. Sharma R.A (2002) Environmental Education: surya Publication, near Govt. Inter College, Meerut 250001

# 70134 Practical – III School based Learning Activities 200 Marks (8 credits)

S. No.	Activity	Maximum Marks	Credits
1.	Addressing School Assembly on different themes	50	2
2.	Preparation of school time table	50	2
3.	Organizing Quiz/Debate/Parent teacher Association	50	2
4.	Maintenance of a school Register	50	2

# 70141- EDUCATIONAL TECHNOLOGY

#### **OBJECTIVES**

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

- understand the meaning of the term 'Educational Technology'
- be familiar with application of Educational Technology
- appreciate the role of technology in education
- use the concept in designing classroom teaching
- ❖ acquire knowledge and skills necessary for using media in teaching-learning
- ❖ have a positive attitude towards Educational Technology

# **UNIT I Concept of Educational Technology**

Meaning, Need and Scope of Educational Technology – Difference between "Technology of Education" and "Technology in Education" – Definition of Educational Technology – Major approaches of Educational Technology – Hardware Approach – Software Approach – Objectives of Educational Technology – Educational Technology as a System.

## **UNIT II Teaching Learning Process and Educational Technology**

Concept of Teaching – learning Process – Condition of Teaching Learning Process – Relationship between Teaching and Learning – Variables of Teaching – Principles of Teaching – Role of Educational Technology in teaching – Learning Process.

# **UNIT III System Approach**

Definition of a System – Components of an Instructional System – Flow Diagram for Designing a System – Steps in System Approach – Advantages of System Approach – Role of the Teacher in System Approach.

# UNIT IV Mass Media in Education –I

Mass Media – Meaning and Significance – School Broadcast Programmes – Merits of School Broadcasting – Limitation and shortcomings – Suggestion for Effective School Broadcasting Programmes.

# **UNIT V Mass Media in Education -II**

ETV (Educational Television)

Merits and Limitations of ETV

**CCTV** 

Role of Teacher in School TV Programme.

# **UNIT VI Information Technology in Education- I**

Information Technology – Definition – Meaning

Importance of Information Technology

Information Technology Revolution

History of Information Technology.

# **UNIT VII Information Technology in Education- II**

Cybernetics - meaning

Cybernetics and Education

E- Learning

Internet

Role of Internet in teaching and learning.

# **UNIT VIII Media Selection and Integration**

Introduction – Media and Instructional process – Need of Media Selection – Factors affecting media Selection – How to select media – media Integration – Multiple media and multimedia.

# **UNIT IX Application to Computer Programmes - I**

Introduction – Approaches to the use of computers in education – Computer based Training (CBT) – Computer Managed Learning (CMC) – Computer Assistance Learning (CAL).

# **UNIT X Application to Computer Programmes – II**

Computer Assistance Instruction (CAI) – Modes of CAL – Advantages of CAL – Limitations of CAL – Problems related to the use of CAL approach – Steps.

# **UNIT XI Experiential Learning**

Introduction – Nature of Experience – Learning from experience – Experiential learning – Objectives – experiences leading to learning – Teaching strategies for experiential learning – Teacher determined methods.

# **UNIT XII Developing Learning Skills-I**

Introduction – Stages in the process of learning

Learning styles

Types of learning styles

Importance of learning style

Learning strategies

Meta memory.

# **UNIT XIII Developing Learning Skills-II**

Meta cognition

Meta comprehension study skills

Note Taking

Underlining – marginal comments and coding systems

Problem solving strategies.

# **UNIT XIV Evaluation and Managing Educational Technology**

Introduction – purpose – types – different approaches – model of evaluation of educational technology – Quality – steps – different context of evaluation and educational technology management – concept – functions – system approach – steps.

- 1. Agrawal, J.C.: Educational Technology and Management. Agra: Vinod Pustak Mandir. 2003.
- 2. Agrawal, Rashmi: Educational Technology and Conceptual Understanding.
- 3. New Delhi: Prabhat Prakashan, 2001.
- 4. Brown, J.W., R.B. and Hercheroad: A.V. Instruction Technology Media and Method.New York: McGraw Hill Book Company, 1977.
- 5. Chand, Tara: Educational Technology. New Delhi: Anmol Publication, 2002.
- 6. Davis, I.K.: The Management of Learning. London: McGraw Hill Book Company, 1971.
- 7. Dececo, John, P.: Educational Technology: Readings in Programmed Instruction.
- 8. London: Holt Rinehert and Winston, 1964.
- 9. Jerone, P. L. and Clarence, M. W.: A Guide to Programmed Instruction. J. Wiley and Sons, New York,1975.
- 10. Kumar, K.L.: Educational Technology and Conceptual Understanding. New Delhi: New Age Publication, 2001.
- 11. Mangal, S.K.: Fundamentals of Educational Technology. Ludhiana: Prakash Brothers,1988.
- 12. Mukhopadhyay, M.: Educational Technology Challenging Issue. New Delhi: Sterling Publishers Private Limited, 1980.

70142 Practical – IV School Internship/ Practice teaching 400 marks (16 credits)

S. No.	Subjects/Records	Maximum Marks	Total	Credits
1.	Pedagogy Optional I Preparation and utilization of teaching aids	25		
	Teaching competence	75	100	4
2.	Pedagogy-Optional II Teaching Competence	75		
	Preparation and utilization of teaching Aids	25	100	4
	Observation			
3.	Pedagogy –Optional I	25	50	2
	Pedagogy –Optional II	25		
4.	Lesson Plan			
	Pedagogy Optional –I	25	50	2
	Pedagogy Optional -II	25		2
5.	Micro Teaching			
	Pedagogy Optional –I	25	50	2
	Pedagogy Optional -II	25		
6.	<b>Test and Measurement</b>			
	Pedagogy Optional –I	25	50	
	Pedagogy Optional -II			2
		25		