

	<p><b>Sri Ramakrishna Mission Vidyalaya College of Education</b>          (An Autonomous College Affiliated to the Tamil Nadu Teachers Education University and          Re-accredited with A++ Grade by NAAC with CGPA 3.82)          Sri Ramakrishna Vidyalaya Post, Periyanaickenpalayam, Coimbatore - 641 020.          Phone: 80125 33915   E-mail: srkvcoen@yahoo.co.in   Website: www.srvcoe.org</p>	<p>NAAC 3<sup>rd</sup> Cycle</p> <hr/> <p>Criterion II Metric 2.7.1</p>
---	---	---

## CRITERION II

### TEACHING - LEARNING AND EVALUATION

#### 2.7 Student Performance and Learning Outcomes

**2.7.1 The teaching learning process of the institution is aligned with the stated PLOs and CLOs.**

**Any other relevant information**



## Sri Ramakrishna Mission Vidyalaya College of Education

(An Autonomous College Affiliated to the Tamil Nadu Teachers Education University and  
Re-accredited with A++ Grade by NAAC with CGPA 3.82)

Sri Ramakrishna Vidyalaya Post, Periyanaickenpalayam, Coimbatore - 641 020.  
Phone: 80125 33915 | E-mail: srkvcoen@yahoo.co.in | Website: www.srkvcoe.org

NAAC  
3<sup>rd</sup> Cycle

Criterion II  
Metric 2.7.1

**2.7.1 The teaching learning process of the institution is aligned with the stated PLOs and CLOs.**

### Any other relevant information

#### Details of the Documents

S.No.	Documents
1	Syllabus Highlighting Programme Outcomes (POs) and Course Outcomes (COs)
	(i) B.Ed. Degree Programme
	(ii) M.Ed. Degree Programme
2	Model Question Paper with COs and Knowledge Level
3	Outcome Based Education - Feedback

**1. Syllabus Highlighting Programme Outcomes (POs) and  
Course Outcomes (COs)**

**(i) B.Ed. Programme**

**SRI RAMAKRISHNA MISSION VIDYALAYA  
COLLEGE OF EDUCATION**

**(AUTONOMOUS)**

**Coimbatore - 641 020**



**SYLLABUS**

**Bachelor of Education (B.Ed.)**

**2022-2023 Onwards**

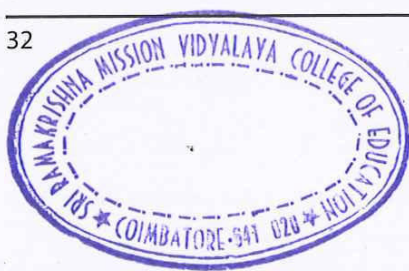


  
Principal  
Sri Ramakrishna Mission Vidyalaya  
College of Education (Autonomous)  
Coimbatore-641 020.

## Programme Outcomes of B.Ed., Programme

On the successful completion of the programme, the student-teachers will be able to

PO1	<b>Professional Development:</b> professionally equip with teaching skills and competencies for changing needs and global concerns.
PO2	<b>Technical Expertise:</b> develop scientific temperament, technical knowledge and blended learning approaches in tune with globalization and international competitiveness.
PO3	<b>The Teacher and Society:</b> review the contemporary issues in education and society in general, and the development of our nation in particular.
PO4	<b>Contextual Knowledge:</b> gain deeper understanding of contextual knowledge and apply them in Teaching-Learning situations.
PO5	<b>Diverse Needs of Students:</b> adopt and apply various teaching strategies to handle students with diverse needs and be meticulous in creating adequate support to them.
PO6	<b>Ethics:</b> emerge as responsible citizens and accountable teachers with clear conviction to practice spiritual, moral and social values and inculcate them to learners.
PO7	<b>Well-being:</b> promote physical, mental and emotional well-being of self and thereby disseminate the same to their learners.
PO8	<b>National Integrity:</b> organise events of educational and national importance accommodating different stakeholders of education.
PO9	<b>21<sup>st</sup> Century Skills:</b> enhance their 21 <sup>st</sup> century skills and apply those skills for entrepreneurship and employability.
PO10	<b>Life-long Learning:</b> recognize the need for, and have the preparation and ability to engage in independent, self-directed and life-long learning.



## SEMESTER - I

<b>Group A : Perspectives in Education</b>	
B1 CC 01	Educational Philosophy in Indian Context
B1 CC 02	Learner and Learning -I
B1 CC 03	School Organization and Institutional Planning
B1 CC 04	Evaluation, Elements of Statistics and Research
<b>Group B : Curriculum and Pedagogical Studies</b>	
<b>Pedagogy 1</b>	
B1 P1 11	Pedagogy of English – Paper I
B1 P1 21	Pedagogy of Computer Science – Paper I
B1 P1 31	Principles of Commerce and Accountancy Education – Paper I
<b>Pedagogy 2</b>	
B1 P2 11	Pedagogy of Biological Science – Paper I
B1 P2 21	Pedagogy of Commerce and Accountancy – Paper I
B1 P2 31	Pedagogy of Special English – Paper I
B1 P2 41	Pedagogy of History – Paper I
B1 P2 51	Pedagogy of Mathematics – Paper I
B1 P2 61	Pedagogy of Physical Science – Paper I
<b>Group C : Enhancing Professional Capacities (EPC)</b>	
B1 EPC 1	Utilizing Library and Digital Learning Resources

## B1 CC 01 - EDUCATIONAL PHILOSOPHY IN INDIAN CONTEXT

### Preamble

The aim of this course is to enable the student teachers to understand the Indian culture, values, philosophical thoughts, social harmony and scientific outlook to achieve the national goals through education.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	appreciate the traditional values and ancient Indian culture
CO2	describe the divergent philosophies and their implications in education
CO3	realise the relationship between education and society
CO4	identify the teacher's role in Indian society
CO5	illustrate the contribution of education to national development

### Unit - 1: Education for Changing Indian Society (9 Hours)

- 1.1 Meaning and scope of philosophy - Inter-dependence of philosophy and education.
- 1.2 Religious philosophies and their educational implications in a secular society.
- 1.3 Culture - definition - salient features in Indian culture - Ancient Indian values like spirituality, simplicity, purity of truth, dignity of labour, universal tolerance and acceptance.
- 1.4 Impact of Indian Culture on Education in ancient India as exemplified by the Gurukula system of Education, Educational Philosophy in Sangam literature.
- 1.5 Changing values in modern India - Tradition and modernity, the role of education as conserving the best of the past and as an instrument of social change and development.

### Unit - 2: Educational Philosophies (9 Hours)

- 2.1 Educational philosophies of Swami Vivekananda, Sri Aurobindo, Tagore, Mahatma Gandhi.
- 2.2 Educational thoughts of Dr. S. Radhakrishnan and Sri. J. Krishnamurthy.
- 2.3 Comparison of the Indian philosophy with western Idealism, Realism, Naturalism and Pragmatism - Vedanta, Nyaya and Buddhism.

- 2.4 Other Educational Philosophies - Existentialism and analytical philosophy.
- 2.5 Humanism and its educational implications.

**Unit – 3: Education and Society (9 Hours)**

- 3.1 Role of family, community and society in promoting education.
- 3.2 Concept of social system and education as a sub-system.
- 3.3 Role of education in social change and social mobility.
- 3.4 Education for the 21<sup>st</sup> Century - futuristic perspective - concerns and issues.
- 3.5 Principles of education - four pillars as envisioned by Delor's Commission.

**Unit – 4: Teachers' Role in Indian Society (9 Hours)**

- 4.1 Indian society in transition - Impact of globalization and privatization - educational planning in India.
- 4.2 Modernization of Indian Society - Redefined traditional and modern values.
- 4.3 Teacher as a social worker - Teachers' role in pupils' development, community welfare, national integration and international understanding.
- 4.4 Sociological determinants of education - Teachers' role in strengthening integrated and cohesive forces.
- 4.5 Educational implications of philosophy in conserving social harmony.

**Unit – 5: Contribution of Education to National Development (9 Hours)**

- 5.1 Promotion of scientific outlook and positive attitude among students.
- 5.2 Religious and caste system - Role of Education in promoting communal and religious harmony.
- 5.3 Equal educational opportunities: socially disadvantaged, economically backward and children with special needs.
- 5.4 Curriculum construction - Principles - flexibility - sensitivity to pupil needs and differences - Curricular adaptations for children with special needs.
- 5.5 Curriculum and national goals - involvement of teachers in curriculum planning and implementation.

**References**

- 1. Anand. (1993). *The teacher & education in emerging indian society*. New Delhi: NCERT.
- 2. Saraswathi, T.S. (1999). *Culture, socialisation and human development*. New Delhi: Sage.
- 3. Steven, B. (1998). *School and society*. New Delhi: Sage.
- 4. Suresh, D. (1998). *Curriculum and child development*. New Delhi: Bhargava.

5. Taneja, V.R. (1998). *Educational thoughts and practice*. Delhi: University Publications.
6. Weber, O.C. (1990). *Basic philosophies of education*. New York: Holt, Rinehart and Winston.
7. சந்தானம், எஸ். (1990). கல்வித் தத்துவமும் கோட்பாடுகளும். சென்னை: தமிழ்நாட்டுப் பாடநூல் நிறுவனம்.
8. கிருஸ்தோபர், கே.டி. (1991). கல்வி வரலாறு. சென்னை: தமிழ்நாட்டுப் பாடநூல் நிறுவனம்.
9. பால்ராஜ், என்.கே. (2007). இந்தியக் கல்வியின் இன்றைய பிரச்சனைகள் (பொதுப் பிரச்சனைகள்) சென்னை: தமிழ்நாட்டுப் பாடநூல் நிறுவனம்.
10. செல்லையா, கொ.ஆ. (1991). இந்தியக் கல்வியின் இன்றைய பிரச்சனைகள் (சிறப்புப் பிரச்சனைகள்). சென்னை: தமிழ்நாட்டுப் பாடநூல் நிறுவனம்.

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2	2	2	3	2	3	2	2		2
CO2	2	2	3	3	2	2	2	2		2
CO3	3	2	3	3	2	2	2	2		2
CO4	2		2	3		3	2	2	2	2
CO5	2		3	3	2			2		2

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**



## B1 CC 02 - LEARNER AND LEARNING - I

### Preamble

The aim of the course is four folded. First to know the individual development in socio-cultural context. Second to acquire theoretical perspectives of learning and to understand the dimensions, stages of human development. Third to understand a range of cognitive capabilities and affective process. Finally aware of different context of learning and school context as a positive environment for learning.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	remember individual development in socio-cultural context. Apply it to deal the issues of cohesiveness and diversity in teaching and learning process.
CO2	analysis different dimensions and stages of human development to deal the problems of childhood and adolescent learners.
CO3	evaluate the cognitive capabilities and affective competencies among learners.
CO4	develop and utilize digital resources to understand the nature of learning and guide the learner's learning.
CO5	measure the quality of learning in different school context. Synthesis different school context to develop positive and progressive learning among learners.

### Unit - 1: Introduction

(9 Hours)

- 1.1 Understanding learner as individual – Learner behaviour
- 1.2 Behaviour - definition - educational social behaviour.
- 1.3 Teaching – teacher behaviour to facilitate learning.
- 1.4 Important methods to study Educational behaviour – introspection, observation, case study, experimental, psycho-analysis and developmental method.
- 1.5 Learner behaviour in school context – teachers to develop holistic understanding of learner in school context.

**Unit – 2: Learner as Developing Individual (9 Hours)**

- 2.1 Stages of development – developmental tasks - growth and development – emphasis on concerns of adolescence.
- 2.2 Nature and nurture, continuity and discontinuity issues, growth and maturation.
- 2.3 Dimensions of learner development - Cognitive development(Piaget)
- 2.4 Affective development – Emotional development (Schachter – Singer) - Cognitive theory of emotion.
- 2.5 Factors of Psycho-social development – Social competence, Social Maturity.

**Unit – 3:Cognitive Processes (9 Hours)**

- 3.1 Sensation, perception, concept formation
- 3.2 Attention, division of attention, distraction of attention
- 3.3 Thinking – definition – Processes: imagination, language
- 3.4 Reasoning and Problem solving.
- 3.5 Cognitive processes – influence on learner development - applications in classroom teaching.

**Unit – 4: Theoretical Perspectives on Learning (9 Hours)**

- 4.1 Implicit knowledge and beliefs about learning(misconceptions)
- 4.2 Perspectives on human learning: Stimulus Response – Associationist type of theories (E L Thorndike, E P Pavlov and B F Skinner) - Gestalt field theories – W G Kohler
- 4.3 Relevance and applicability of various theories of learning for different kinds of learning situations.
- 4.4 Learning curve: positively and negatively accelerated curves.
- 4.5 Transfer of learning – positive, negative and zero transfer.

**Unit – 5: Memory and Forgetting (9 Hours)**

- 5.1 Memory – definition – types – its importance as a cognitive process.
- 5.2 Forgetting - definition – kinds - factors contributing to memory and forgetting – stages of memory (registration – retention – recall).
- 5.3 Causes of forgetting and types of forgetting- Forgetting curve (Ebbinghaus)
- 5.4 Measurement of memory – learning method, saving method and prompting method.
- 5.5 Influence of memory and forgetting on learning and development of learner.

## References

1. Dash, B. (2011). *Text book of educational psychology*. New Delhi: Wisdom.
2. Jain, M. (2010). *Encyclopaedia of educational psychology*. New Delhi: Anshah.
3. Kumar, A. (2011). *Educational psychology*. New Delhi: Educational Publishers.
4. Kumar, B. (2009). *Educational psychology*. New Delhi: APH.
5. Mishra, R. (2009). *Child psychology*. New Delhi: APH.
6. Ormrod, J.E. (2018). *Essentials of educational psychology: Big ideas to guide effective teaching* (5th Edition). New Delhi: Pearson.
7. Ormrod, J.E. (2019). *Educational psychology: Developing learners* (10th ed.,). New Delhi: Pearson.
8. Ramasami, T. (2008). *Education and personality development*. New Delhi: APH.
9. Robinson, S. (2009). *Foundations of educational psychology*. 2nd Edition. New Delhi: Ane Books.
10. Sharma. (2009). *Educational psychology*. New Delhi: APH.
11. Talawar, M. (2009). *Advanced educational psychology*. New Delhi: Centrum.
12. Tandon, R. (2007). *Child psychology*. New Delhi: APH.

## Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1					3					
CO2					3					
CO3							3			
CO4									3	
CO5				3						

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## **B1 CC 03 - SCHOOL ORGANISATION AND INSTITUTIONAL PLANNING**

### **Preamble**

The aim of this course is to understand educational administration, school administration, School plant, School authorities and rules and regulations in the school's organization.

### **Course Outcomes (COs)**

On the successful completion of the course, student-teachers will be able to

CO1	summarize the rules and regulations of Educational Administration.
CO2	identify the role of School Administration and instructional strategies.
CO3	develop sound knowledge about the School Administration.
CO4	enumerate the special qualities of school authorities and maintenance of records.
CO5	construct the rules and regulations of the School Administration.

### **Unit - 1: Introduction**

**(9 Hours)**

- 1.1 Educational Administration: meaning, nature, purpose and scope.
- 1.2 Aims and objectives of educational administration.
- 1.3 Problems in school administration.
- 1.4 Changing concept of school administration.
- 1.5 Present hierarchical structure of administration in Tamil Nadu school education department: state, district and school.

### **Unit - 2: Various types of school administration and Instructional Strategies**

**(9 Hours)**

- 2.1 Classroom management: rhythmic, class culture, students' self-supportive services.
- 2.2 Teaching strategies and methods: brain-storming, questioning, quiz, demonstration, projects, assignment, laboratory practical, using ICT in teaching, skill oriented Teaching; ABL, ALM, AALM.
- 2.3 Various types of schools and their administration: State Board, CBSE, ICSE, Kendriya Vidyalaya Sangathan, Navodaya Vidyalaya Samithi and Sainik School.

- 2.4 Curriculum: Equitable Standard of Education, CBSE, ICSE – academic calendar and time-table.
- 2.5 Resources: Infrastructure with basic amenities, laboratories, library, games and sports facilities.

**Unit – 3: Factors Influencing Effective School Administration (9 Hours)**

- 3.1 School plant – meaning, importance, and principles - Essentials of good school plant.
- 3.2 Internal administration – meaning, areas and hierarchy.
- 3.3 School and community: meaning, importance, community engagement by school, community involvement for school development, PTA.
- 3.4 Co-curricular activities: importance, types and methods.
- 3.5 Discipline – meaning, need, principle, method of imparting discipline, disciplinary issues and remedial measures.

**Unit – 4: Role of School Authorities (9 Hours)**

- 4.1 Role of CEO, IMS, DEO and BEO: Inspection, Authority, Service matters and Budget.
- 4.2 Role of Head masters in school administration
- 4.3 School office: Physical facilities and material resources – maintenance
- 4.4 School office personnel: Distribution of responsibilities – calendar – maintenance of records and accounts – Education Management Information System (Students) – Service Record (Staff)
- 4.5 Registers and records: needs, kinds of records, arrangement of records to be maintained at school office.

**Unit - 5: Rules and Regulations in school administration (9 Hours)**

- 5.1 Establishment of new schools – Rules and regulations – Government and private schools
- 5.2 Departmental test – types – procedure for appearance – access to relevant source materials.
- 5.3 Selective service and leave rules as approved by Government.
- 5.4 Rules and regulations for the maintenance of records, registers and files at school office
- 5.5 Code of conduct for teachers and students at school level.

## References

1. Arulselvam. M. (2003). *The Tamil Nadu educational code- Code of regulations for matriculation school in Tamil Nadu*. Chennai: Malathi.
2. Das, B.N. (2007). *School organization, administration & management*. New Delhi: Neelkamal.
3. Dash, M., & Dash, N. (2010). *School management*. New Delhi: Atlantic.
4. Ediger, M. (2007). *Administration of schools*. New Delhi: Discovery.
5. Kochhar, S.K. (2002). *Secondary school administration*. New Delhi: Sterling.
6. Krishnamachorylu, V. (2009). *School management and system of education*. New Delhi: Neelkamal.
7. Manora, C.B (2008). *Personal management – Text & cases*. New Delhi: Himalaya.
8. Mohanthy, J (2007). *Educational management supervision, school organization*. New Delhi: Neelkamal.
9. Nagarajan, K. (2009). *Educational innovations and management*. Chennai: Ram.
10. Natarajan, S. (2006). *Educational management*. Chennai: Ram.
11. Ramani, K.V. (2008). *A text book of educational management*. New Delhi: Dominant.
12. Ramanna, R.K. (2007). *Theory & educational, administration*. New Delhi: Rajat.
13. Reddy, G.S. (2007). *Current issues in education*. Hyderabad: Neelkamal.
14. Safaya, R.N., Shaiuida, B.D., & Shukla, C.S. (2006). *Modern educational administrations and organization*. New Delhi: Dhanpet Rai.
15. Safaya., & Shaida. (2008). *Modern school administration and organization* (5th ed.). New Delhi: Dhanpat Rai.
16. Sharma, R.A. (2006). *School management*. Meerut: Surya.
17. Stoner, J.F. (2009). *Management & education*. Chennai: Shantha.
18. Singh, Y.K. (2010). *Primary and secondary education*. New Delhi: APH.
19. *Tamil Nadu Grant-in-Aid Code*.
20. *The Tamil Nadu Educational Inspection Code*.
21. Vaidyanathan, P.J., & Rajmthan. R. (2007). *School management*. Chennai: Shanta.
22. Vashist, S.R. (2009). *Principles of educational supervision*. New Delhi: Anmol.
23. திலகவதி. (2009). இந்திய சமுதாயத்தில் மலரும் கல்வி. சென்னை: ஜி.வி.பதிப்பகம்.
24. கோகிலா தங்கசாமி. (2009). இந்திய சமுதாயத்தில் கல்வி. மதுரை: மா.நிலா.பதிப்பகம்.
25. கோகிலா தங்கசாமி. (2009). கல்வி புதுமைகளும் மேலாண்மையும். மதுரை: மா.நிலா.பதிப்பகம்.

## Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	1		3		2			2		
CO2	3		3							1
CO3				2	3		1	1		
CO4		2				2			1	
CO5	3					2		2		1

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## **B1 CC 04 - EVALUATION, ELEMENTS OF STATISTICS AND RESEARCH**

### **Preamble**

The aim of this course is to acquire basic knowledge and comprehension of different techniques and approaches in evaluation, basic quantitative measures and educational research.

### **Course Outcomes (COs)**

On the successful completion of the course, student-teachers will be able to

CO1	apply the basic statistical concepts in testing and evaluation.
CO2	understand the taxonomy of educational objectives and create various types of test items.
CO3	compare different quantitative measures and apply in testing and evaluation.
CO4	evaluate the current trends in examination system.
CO5	classify the different types of research applicable to education.

### **Unit – 1: Techniques and Approaches of Evaluation (12 Hours)**

- 1.1 Evaluation: Meaning – measurement, assessment and evaluation – purpose and significance of tests in education.
- 1.2 Relationship among Educational Objectives, Learning experiences and Evaluation.
- 1.3 Types of Evaluation – formal and informal, oral and written, formative and summative.
- 1.4 Tools of Evaluation – observation schedules, interviews, tests, rating scales and questionnaires.
- 1.5 Different types of tests - Diagnostic, Prognostic, Achievement and Psychological tests; Norm-referenced and Criterion-referenced tests.

### **Unit – 2: Educational Objectives and Test Construction (12 Hours)**

- 2.1 Bloom's taxonomy of Educational Objectives – Cognitive, affective and psychomotor domains – classifications.
- 2.2 Revised Taxonomy of educational objectives (Anderson and Krathwohl)
- 2.3 Educational implications of evaluation related to Delor's four pillars of Education.

- 2.4 Characteristics of quality test items – objectivity, reliability, validity and feasibility of measurements.
- 2.5 Steps in test construction: blue print – table of specifications, writing and editing – pretesting – items analysis – scoring – interpretation.

**Unit – 3: Basic Quantitative Measures (12 Hours)**

- 3.1 Tabulation – frequency table, graphical representation of data and its uses – bar diagram, histogram, frequency polygon and pie diagram
- 3.2 Measures of central tendency – mean, median, mode and their uses.
- 3.3 Measures of variability – range, quartiles, quantiles, deciles and percentiles – quartile deviation and standard deviation.
- 3.4 Normal distribution, Normal curve, its structure and properties.
- 3.5 Correlation – definition, meaning, types and uses, computing the co-efficient of correlation by the rank difference method.

**Unit – 4: Current Trends in Examination System (12 Hours)**

- 4.1 Continuous and Comprehensive Evaluation (CCE) in Schools - Grading system.
- 4.2 Continuous assessment in higher education and teacher education, semester and trimester systems – choice-based credit system - role of National Testing Service Centre and NAAC
- 4.3 Role of ICT in evaluation – on-line examination - self evaluation by teacher and students– peer evaluation.
- 4.4 Open book examination – preparation of question bank and its uses.
- 4.5 Evaluation system practiced in different types of schools – State Board - CBSE - ICSE – Kendriya Vidyalaya – Navodaya Vidyalaya – Sainik schools – National Open School.

**Unit – 5: Introduction to Educational Research (12 Hours)**

- 5.1 Need and scope for research in education.
- 5.2 Qualities of a good researcher – role of a teacher as a researcher.
- 5.3 Introduction to types of research – basic, applied and action research – steps in action research.
- 5.4 Outline of Research Report.
- 5.5. Research funding agencies in India.



## References

1. Aggarwal, Y.P. (1992). *Research in emerging fields of education: Concepts, trends and prospects*. New Delhi: Sterling.
2. Aggarwal, Y.P. (2004). *Statistical methods*. India: Sterling.
3. Best, J. W. (1988). *Research in education*. New Delhi: Prentice Hall of India.
4. *Fifth Survey of Research in Education*. (1997). New Delhi: NCERT.
5. Garret, H. E. (1972). *Statistics in psychology and education*. Bombay: Vakils, Feffer & Simons.
6. George, D. (2005). *Modern trends in examination system*. New Delhi: Common Wealth.
7. Khan, M.S. (2004). *School evaluation*. India: Ashish.
8. Mangal, S.K. (2007). *Statistics in psychology and education*. India: Prentice Hall of India.
9. Mrunalini, T. (2009). *Educational Evaluation*. India: Neelkamal.
10. Pal, S.K., & Saxena, P.C. (1995). *Quality control in educational research*. Metropolitan Book.
11. SCERT. (2016). *Continuous and comprehensive evaluation – General principles*. SSA, Resource Book, Tamil Nadu.
12. Sharma, R.A. (2004). *Essentials of measurement in education & psychology*. Meerut: Surya.
13. Smith, D. (2005). *History of measurement and evaluation*. India: Commonwealth.
14. Soman, K. (2006). *Measurement and evaluation in education*. Calicut, India: Calicut University.
15. Young, P.V.(1992). *Scientific social surveys and research*. Bombay: Asia.
16. Ved Prakash. (2000). *Grading in schools*. New Delhi: NCERT.

## Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	2		3						
CO2	3	3		3	3					3
CO3	3	2		3					3	2
CO4	2	3	3		2				2	3
CO5	2	3		2	2	2				2

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## B1 P1 11 - PEDAGOGY OF ENGLISH - PAPER I

### Preamble

The aim of this course is to offer conceptual knowledge and application of language learning skills, micro teaching skills, formulation of instructional objectives and to familiarize with content of VI standard English text book.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	acquaint the contextual knowledge on nature, role and principles of teaching- learning English language.
CO2	explore the influence of mother tongue in English language learning and apply skill based teaching-learning in classrooms.
CO3	recognise and apply micro teaching skills in teaching learning process.
CO4	formulate instructional objectives based on Bloom's Taxonomy and apply them in classroom transaction.
CO5	analyse the language elements used in VI Standard English text book and apply their knowledge in language teaching.

### Unit – 1: Principles of Language Learning

(12 Hours)

- 1.1 Status of English - Before and After Independence
- 1.2 The Role of English in India today
- 1.3 Need and value of English in the contemporary age
- 1.4 Functions of English Language
- 1.5 English in Indian classroom

### Unit – 2: Learning Language as a Skill

(12 Hours)

- 2.1 The Teaching and Learning of Mother Tongue and English
- 2.2 Role of Mother Tongue in English class
- 2.3 Language learning as a Skill rather than a Knowledge subject
- 2.4 Skill-based Teaching and Learning
- 2.5 The Linguistic Principles of Teaching English

### Unit – 3: Introduction to Micro Teaching

(12 Hours)

- 3.1 Teaching and Training – Training Techniques
- 3.2 Micro teaching – Meaning and Significance
- 3.3 Micro teaching Cycle and Procedure

### 3.4 Micro teaching Skills and Components

### 3.5 Difference between Micro teaching and Macro teaching

## **Unit – 4: Aims and Objectives of Teaching English (12 Hours)**

### 4.1 Instructional Objectives – Meaning and Significance

### 4.2 Formulation of Instructional Objectives based on different domains of Bloom's Taxonomy

### 4.3 Formulation of Instructional Objectives based on Language skills

### 4.4 General Instructional Objectives and Specific Instructional Objectives

### 4.5 The Aims and Objectives of Teaching English at Secondary level

## **Unit – 5: Analysis of Reader in English (12 Hours)**

### 5.1 Elements of Language from the Content of the VI Standard English Reader of Tamil Nadu Textbook and Educational Services Corporation. [www.textbooksonline.tn.nic.in](http://www.textbooksonline.tn.nic.in)

## **References**

1. Aggarwal. J.C. (2009). *Essentials of educational technology: Innovations in teaching-learning*, New Delhi: Vikas.
2. Allen, H.B., & Campbell, R.N. (1972). *Teaching english as a second language*. New Delhi: Tata Mc Graw Hill.
3. Baruah, T.L.(1992). *The english teacher's handbook*. New Delhi : Sterling.
4. Bright, J.A., & Mc Gregor, G. P. (1978). *Teaching English as a second language*. Singapore: Longman.
5. Carroll.V. (1997). *Interactive approach to second language reading*. London: Cambridge University.
6. Geetha,N. (2000). *English language teaching: Approaches, methods and techniques*. Calcutta: Orient Longman.
7. Harmer, J. (1990). *The practice of English language teaching*. HongKong: Longman.
8. Hubbard, P. (1983). *A training course for TEFL*. London: Oxford University Press.
9. Hutchison., & Water. (1997). *English for specific purposes*. London: Cambridge University Press.
10. Kohli, A.L. (2003). *The techniques of teaching English in the new millennium*. New Delhi: Dhanpat Raj.
11. Krishnasamy, N., & Raman, T. (1994). *English teaching in India*. Madras: Ram.
12. O'Malley., & Chamot. (1997). *Learning strategies & second language acquisition*. London: Cambridge University.

13. Prabhu, N.S. (1997). *Second language pedagogy*. New Delhi: Oxford University Press.
14. Richarson & Roachards. (1997). *Approaches and Methods in Language*. London: Cambridge University Press.
15. Saraswathi, V. (2005). *English Language Teaching – Principles and Practice*. Hyderabad: Orient Longman Ltd.
16. Sharma, R.N. (2008). *Contemporary Teaching of English*. New Delhi: Surjeet.
17. State Council of Educational Research and Training. (2018). *English course book*, VI standard. Chennai: Tamil Nadu Textbook and Educational Services Corporation. [www.textbooksonline.tn.nic.in](http://www.textbooksonline.tn.nic.in)
18. Tickoo, M.L. (2003). *Teaching and learning English*. New Delhi: Orient Longman.
19. Tiwari, S.R. (2006). *Teaching of English*. New Delhi : Ajay.
20. Thompson, M.S.H. (2003). *Teaching of English*. New Delhi : DPH.
21. Venkateswaran.(1997). *Principles of teaching English*. Bangalore: Vikas.

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2			3					2	2
CO2	2	2	2	3			2	2	2	2
CO3	3	2		3	2				2	2
CO4	2	1		3		2	1		2	2
CO5	3	2	1	3	2	2	1		3	2

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## **B1 P1 21 - PEDAGOGY OF COMPUTER SCIENCE: PAPER I**

### **Preamble**

The aim of this course is to make students familiarize and utilize computers, Develop skills for teaching computer science and get acquainted with different approaches in imparting computer science.

### **Course Outcomes (COs)**

On the successful completion of the course, student-teachers will be able to

CO1	practice the parts of computer and its working aspects.
CO2	recognise the development and growth of computers.
CO3	familiarize with the utilities of computers in various fields.
CO4	implement and execute skills for teaching computer science concepts.
CO5	familiarize with different approaches in imparting Computer Science concepts.

### **Unit – 1: Introduction**

**(12 Hours)**

- 1.1 Devices used for calculation and allied operations in the modern world
- 1.2 Computers - Meaning – Characteristics – Uniqueness –Need
- 1.3 Basic structure of computers – Block diagram – main parts and their role
- 1.4 Computers and Human - Similarities and Dissimilarities in structure and functions
- 1.5 Peripheral devices of computers – Need and Types

### **Unit – 2: Development of Computer**

**(12 Hours)**

- 2.1 Brief History of the development of computers
- 2.2 Evolution of computer generations
- 2.3 Classifications of computers under different criteria
- 2.4 Computer configuration – Development and Advantages
- 2.5 Data Digitization – Concept, Advantages

### **Unit – 3: Impact of Computers and ICT on Various Fields and on Society**

**(12 Hours)**

- 3.1 Computers on various fields – Trade, Research, Transport, Medical, Defence etc.
- 3.2 ICT on Communication – Internet, email, face book, SMS, WhatsApp
- 3.3 e-Governance – Importance and Impact on Society

3.4 Single and multiple purpose computers – nature and utilities

3.5 Role of Computers on Education – Academic, Non-Academic

**Unit – 4 : Teaching Computer Science in Schools (12 Hours)**

4.1 The Aims and Objectives of teaching computer science with reference to the taxonomy of educational objectives

4.2 The need and importance of teaching computer concepts at different levels – Primary, Secondary and Higher Secondary.

4.3 Micro Teaching – Meaning, Cycle, Skills and Usefulness in teaching computer science

4.4 Lesson Plan – Importance, Steps and Preparation of Model Lesson plan

4.5 Unit Plan and Year Plan – Need and importance in teaching computer science

**Unit – 5 : Imparting Computer Concepts – Various Approaches (12 Hours)**

5.1 Inquiry and Problem solving Approach– Need and importance in teaching computer science

5.2 Inductive and Deductive Approach – Usefulness in teaching Computer Science

5.3 Teaching through Projects – Need and Importance in computer science

5.4 Hands-on-Training – Advantages in teaching programs

5.5 Procedures adopted to select suitable techniques for teaching computer concepts

**Practical**

1. Collection and Preparation of various devices used for calculation.

2. Preparing and Maintaining Record on Micro Teaching Skills

3. Preparing Lesson Plan on Teaching Computer science concepts

4. Creating e-mail ID and utilising internet

**References**

1. Davis, G.B. (1982). *Introduction to computers*. New Delhi: McGrawHill.

2. Dhand, H. (2004). *Techniques of teaching*. New Delhi: Ashish.

3. Gear, C.W. (1986). *Computer organization and programming*. New Delhi: McGrawHill.

4. Lalini, V., Sudhakar, V., & Mrunalini, T. (2007). *Computer education*. Hyderabad: Neelkamal.

5. Mano, M.M. (1986). *Computer system architecture*. New Delhi: Prentice Hall of India.
6. Passi, B.K. (1976). *Becoming better teacher*. Ahmedabad: Sahitya Mudranalaya.
7. Rajasekar, S. (2013). *Computers in education*. Hyderabad: Neelkamal.
8. Rajasekar, S. (2008). *Computer education*. Hyderabad: Neelkamal.
9. Sandeep, J.M.M. (2015). *Innovations in the teaching of computer science*. Hyderabad, Neelkamal.
10. Sharma, L.M. (2006). *Techniques of teaching*. New Delhi: Dhanpat Rai .
11. Siddiqui, M.H.(2005). *Techniques of classroom teaching*. New Delhi: APH.
12. Singh, Y.K., & Archnesh Sharma. (2004). *Micro teaching*. New Delhi: APH.
13. Vishnu Priya, S., & Meenakshi, S. (2007). *Computer course (Illustrated)*. New Delhi: Computech.
14. Xavier, C. (1996). *Introduction to Computers and BASIC Programming*. New Delhi: New Age Int.

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	2		3	1				2	
CO2		3			1				2	2
CO3	2	3		3						
CO4			2	3		3			2	2
CO5	3	2		3					2	2

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## B1 P1 31 - PRINCIPLES OF COMMERCE AND ACCOUNTANCY EDUCATION: PAPER I

### Preamble

The aim of this course is to make the students understand, familiarize with Commerce education, acquaint with principles and maxims of teaching Commerce and Accountancy.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	describe the nature, scope and values of Commerce education.
CO2	enumerate the aims and objectives of teaching Commerce and Accountancy.
CO3	design year plan and unit plan in teaching Commerce and Accountancy.
CO4	prepare lesson plan based on new approaches.
CO5	apply the principles of Maxims in teaching Commerce and Accountancy.

### Unit – 1: Commerce Education - An Introduction (10 Hours)

- 1.1 Commerce education - meaning - characteristics - brief survey and historical development of commerce education-its present status.
- 1.2 Nature and Scope of Commerce and Accountancy with special reference to higher secondary school curriculum.
- 1.3 Need for Commerce and Accountancy Education - importance and impact of commerce education on society-major areas of commerce.
- 1.4 Values of teaching Commerce and Accountancy - Practical, Social, Cultural, Moral, Disciplinary and Vocational values.
- 1.5 Correlation of Commerce and Accountancy with reference to Economics, Mathematics, Commercial Geography, Business Management, Statistics and International relations.

### Unit – 2 : Aims and Objectives of Teaching Commerce (8 Hours)

- 2.1 Aims and Objectives - meaning and definition - difference between aims and objectives – educational objectives of teaching commerce and accountancy.
- 2.2 General Instructional Objectives (GIOs) – principles – writing of instructional objectives.



- 2.3 Bloom's Taxonomy of educational objectives - cognitive, affective and psycho motor domains in teaching commerce and accountancy.
- 2.4 Specifications (SIOs) - meaning and principles - writing of specifications -objective based instruction.
- 2.5 Class room objectives and specifications of commerce teaching-criteria for the selection of objectives.

**Unit – 3: Unit Plan and Year Plan (8 Hours)**

- 3.1 Planning - concept - nature - need and importance of planning
- 3.2 Year plan - meaning - importance - steps in year planning - year planning in new approach of curriculum transaction.
- 3.3 Unit plan - meaning - importance - principles and steps - unit planning in new approach.
- 3.4 Preparation of year plan and unit plan in Commerce and Accountancy - unit formation - procedures.
- 3.5 Advantages of unit planning, year planning-demerits and limitations of unit plan and year plan.

**Unit – 4 : Lesson Planning (12 Hours)**

- 4.1 Lesson plan - meaning-origin-need for lesson planning-types of lessons.
- 4.2 Principles of lesson planning - requirements in preparing lesson plan - steps in lesson planning.
- 4.3 Behaviourist approaches in lesson planning- herbartian-gloverian-evaluation-unit and RCEM approaches.
- 4.4 Lesson plan under new approach-constructivist approach-curriculum objectives.
- 4.5 Script for a lesson plan-writing lesson plan for both Commerce and Accountancy.

**Unit – 5 : Principles and Maxims of Teaching (7 Hours)**

- 5.1 Maxims of teaching-meaning-significance-importance of maxims of teaching.
- 5.2 Maxims-simple to complex-particular to general-empirical to rational-known to unknown-actual to representative.
- 5.3 Principles of teaching-meaning-importance-various principles of effective teaching.

- 5.4 Introducing topics- maxims for introducing topics in Commerce and Accountancy- learners skill for learning.
- 5.5 Learning environment-school, home and psychological environment of the teacher and the learner-requirements for learning.

### References

1. Aggarwal, J.C. (2006). *Teaching of social studies*. New Delhi: Vikas.
2. Bhattia., & Bhattia. (2006). *Principles and methods of teaching*. New Delhi: Dobba House.
3. Chopra, H.K., & Sharma, H. (2007). *Teaching of commerce*. Ludhiana: Kalyani .
4. Douglas, P., & Anderson. (2000). *Teaching business subjects*. New York: Prentice Hall.
5. Kochhar, S.K. (2006). *The teaching of social studies*. New Delhi: Sterling.
6. Khan, M.S. (1982). *Commerce education*. New Delhi: Sterling.
7. Muthumanickam, R. (2004). *Educational objectives for effective planning and teaching*. Chidambaram: Cyber Lan.
8. Rao, S. (2005). *Teaching of commerce*. New Delhi: Anmol.
9. Singh, Y.K. (2009). *Teaching of commerce*. New Delhi: APH.
10. Sivarajan. K. & Lal. E.K., (2002). *Commerce education, methodology of teaching and pedagogic analysis*. Calicut: Calicut University.

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1				2		3			2	
CO2	2			2			2	2	2	3
CO3	2			3	2				1	2
CO4	3	2		3					2	
CO5	2			3		2				2

3 - High Correlation

2 - Moderate Correlation

1 - Low Correlation

## B1 P2 11 - PEDAGOGY OF BIOLOGICAL SCIENCE – PAPER I

### Preamble

The aim of this course is to develop an understanding of the nature and scope of biological science, aims, objectives, history and development of biology and teaching content in biological science at standard VI.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	describe the need, nature and scope of Biological Science.
CO2	design the aims and objectives and values of Biological Science.
CO3	formulate the development of Biological Science with recent trends.
CO4	summarize various methods of teaching Biology using modern methodology.
CO5	apply the important concepts of Biological Science at VI standard level.

### Unit - 1: Nature and Scope of Bio-science

(12 Hours)

- 1.1 Meaning, Nature and scope of Bio-science.
- 1.2 Process and product - inquiry dynamic body.
- 1.3 Inter disciplinary approaches of Biology.
- 1.4 Biology as a subject of study at School level - various branches.
- 1.5 Biology and society: Agriculture Medicine, Food resources, Population Control, Pollution control, Industry, Veterinary and animal husbandry.

### Unit - 2 : Aims and Objectives of Teaching of Biology

(12 Hours)

- 2.1 Scientific attitude: Definition and Meaning - fostering the scientific attitude Pros and cons.
- 2.2 Relating Biology – Natural and man-made environment.
- 2.3 Values of Biology.
- 2.4 Problem solving abilities – various steps, Pros and cons.
- 2.5 Aims and objectives of teaching Biology at various levels (Primary, Secondary and Higher Secondary).

### Unit - 3: Learning of Biology

(12 Hours)

- 3.1 Biologist – Discoveries and inventions -Significance.
- 3.2 Biological Developments: Classification – Physiology – History of Embryology and Genetics.

- 3.3 Bio-science projects - types and importance.
- 3.4 Collection of Biology materials from museum, exhibition, book festival laboratory, public, botanical garden, Zoo.
- 3.5 Modern Biology – Development in Biotechnology and Bioinformatics.

**Unit - 4: Micro Teaching (12 Hours)**

- 4.1 Micro teaching - Definitions, Meaning and Background.
- 4.2 Principles of micro teaching objectives.
- 4.3 Various steps in micro teaching.
- 4.4 Various skills - skill of questioning, explaining, stimulus variation, reinforcement, black board writing illustrating the concept with suitable examples.
- 4.5 Micro teaching cycle - merits and demerits.

**Unit - 5 : Teaching of content of Biology at Standard VI Level (12 Hours)**

- 5.1 The living world of plants – root system – shoot system.
- 5.2 Types of habitats.
- 5.3 Living world of animals – unicellular and multicellular organism.
- 5.4 Adaptation in animals.
- 5.5 Health and Hygiene.

**References**

- 1. Ameeta, P. (2009). *Methods of teaching of biological science*. Hyderabad: Neelkamal.
- 2. Bowler, P.J. (2003). *Evolution : The history of an idea* (3rd ed.). California: University of California Press.
- 3. Boylan, M. (2006). *Hippocrates - Internet encyclopedia of philosophy*, London: Pimlico.
- 4. Browne, Janet. (2003). *Charles Darwin: The power of place*. London: Pimlico.
- 5. Coyne, J. (2012). A Squamous cell carcinoma with a Saint Valentine's Day Message.
- 6. *Embryology - History of embryology as a science*. Science Encyclopedia.
- 7. Germ Layer. (2009). *Encyclopedia Britannica*. London: Pimlico.
- 8. *International Journal of Surgical Pathology*, 20(1), 62. doi: 10.1177/1066896911434768.
- 9. Kampourakis, K. (2014.) *Understanding Evolution*. Cambridge: Cambridge University press.
- 10. Sharma, R.C. (2010). *Modern teaching science*. New Delhi: Dhanpet Rai.
- 11. Sharma, R.C., & Shukla C.S. (2002). *Modern science teaching*. New Delhi: Dhanpet Rai.

12. *State Council of Educational Research and Training*. (2018). Textbook of science, VI Standard. Chennai: Tamil Nadu Textbook and Educational Services Corporation.  
www.textbooksonline.tn.nic.in

**Mapping of Course Outcomes (COs) with Programme Outcomes (POs)**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3								2	
CO2	2	2		1					1	1
CO3		2	2		1				1	
CO4	3	2		3	3					
CO5	1	1		3	2				2	

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## B1 P2 21: PEDAGOGY OF COMMERCE AND ACCOUNTANCY- PAPER I

### Preamble

The aim of this course is to develop an understanding of the different types of curriculum and techniques in and of education to teach commerce and accountancy, develop competency in methods and techniques of teaching, understand about instructional approaches and enhance their skills.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	classify the different types of curriculum.
CO2	develop micro teaching skills in Commerce.
CO3	apply competency in methods and techniques of teaching Commerce.
CO4	practice the instructional approaches in teaching Commerce.
CO5	identify the types of training programme and realise the qualities of a Commerce and Accountancy teacher.

### Unit - 1 : Commerce Curriculum - An Introduction (12 Hours)

- 1.1 Curriculum – meaning and definition – curriculum vs. syllabus
- 1.2 Bases of curriculum development – principles of curriculum construction.
- 1.3 Types of curriculum – activity centered and subject centered – Approaches of curriculum organization – spiral and concentric approaches.
- 1.4 Commerce and accountancy syllabi – academic and vocational curriculum – vocational areas identified in the Tamil Nadu Higher Secondary Curriculum
- 1.5 Comparison of CBSE and State Board commerce and accountancy syllabus.

### Unit - 2 : Micro Teaching Skills in Commerce (12 Hours)

- 2.1 Micro teaching- Historical development
- 2.2 Meaning-Definition-Objectives- Characteristics of micro teaching.
- 2.3 Steps and procedure of microteaching
- 2.4 Micro teaching cycle- advantages and disadvantages of micro teaching.
- 2.5 Major micro teaching skills- skill of explaining, stimulus variation, black board writing, reinforcement, illustrating with example.

**Unit - 3 : Methods of Teaching (12 Hours)**

- 3.1 Methods of teaching, meaning need – characteristics of good teaching method – classification of methods of teaching – lecture method, descriptive method, Problem solving method – inductive and deductive method – case study.
- 3.2 Techniques of teaching – role playing, brainstorming, buzz session, stimulation, seminar, symposium, group discussion, workshop and team teaching

**Unit – 4 : Instructional Approaches in Commerce (12 Hours)**

- 4.1 Individualised Instruction- principles of individualized instruction
- 4.2 Programmed Instruction- Types- Branched and Linear
- 4.3 Personalised System Instruction-Computer Aided Instruction-Computer Assisted Learning-Computer Managed Learning
- 4.4 Multimedia Packages, learning objects etc.
- 4.5 Module preparation for e-content development

**Unit – 5 : Commerce Teacher and Professional Development (12 Hours)**

- 5.1 Commerce and Accountancy teacher – academic and professional qualification – professional growth of a teacher.
- 5.2 Pre service and in service programme- need and its importance of attending various training programmes
- 5.3 Duties and responsibilities of a commerce and accountancy teacher – social and environmental responsibilities of a commerce teacher – problems faced by the commerce teachers.
- 5.4 Preparation and the importance of Teacher's Diary, Time-table, proper maintenance of registers and records.
- 5.5 Qualities of a good commerce and accountancy teacher.

**References**

- 1. Boynton, L.O. (1995). *Methods of teaching book keeping*. Cincinnati: South Western.
- 2. Dhand, H. (2009). *Techniques of teaching*. New Delhi: APH.
- 3. Erisson, L.H. (1998). *Concept based curriculum instruction*. India: Sage.
- 4. Khan, M.S. (1982). *Commerce education*. New Delhi: Sterling.
- 5. Mangal, S.K. (2001). *Foundations of educational technology*. India: Tandon.
- 6. Passi, B.K., & Lalita, M.A. (1976). *Microteaching: Theory and research*. Dehradun, India: Jugal Kishore.

7. Rao, S. (1995). *Teaching of commerce*. New Delhi: Anmol.
8. Rao, S. (2004). *Teaching of commerce*. New Delhi: Anmol.
9. Satish, C. (2006). *Educational technology and measurement*. Meerut, India: R.Lall.
10. Sharma, R.A. (2005). *Teaching of commerce*. Meerut, India: Surya.
11. Siddiqui, M.H. (2009). *Techniques of teaching*. New Delhi: APH.
12. Singh, R.P. (2005). *Teaching of commerce*. Meerut, India: Surya.
13. Sivarajan, K., & Lal. E.K. (2002). *Commerce education - Methodology of teaching and pedagogic analysis*. Calicut: Calicut University.

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1				2		2	2		2	3
CO2	3	1		3	2				2	2
CO3	2	2			3					
CO4	2	3			3				2	2
CO5				2		2	2	2	2	

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**



## B1 P2 31 - PEDAGOGY OF SPECIAL ENGLISH - PAPER I

### Preamble

The aim of this course is to enlighten the prospective teachers on teaching materials, strategies, reading and phonetics in addition to the relevant contents at secondary level, and help them develop into effective teachers at secondary level.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	acquaint with teaching materials and modern teaching strategies appropriate to advanced students of English Language at Secondary level.
CO2	understand the nature and values of Reading and use different methods of teaching Reading.
CO3	familiarize with the Phonology of English, give them ear training, speech training and make them transcribe a passage in English.
CO4	improve their working knowledge of the Verbs in English and apply them while teaching Modern English Grammar and Usage to the students at Secondary level.
CO5	master the Language Elements used in the IX Standard English Course Book of Tamil Nadu Textbook and Educational Services Corporation.

### Unit – 1 : Study Skills and Reference Skills (12 Hours)

- 1.1 Study and Reference Skills - Meaning, Need and Significance of the Skills
- 1.2 Practice in the efficient use of Dictionary and Textbooks
- 1.3 The Study technique – SQ3R – Significance of Study technique
- 1.4 Practice in use of Library Resources
- 1.5 Preparation of Annotated Bibliography on different aspects of ELT

### Unit – 2 : Introduction to Reading (12 Hours)

- 2.1 Reading – Meaning and Purposes of Reading
- 2.2 Psychological Process of Reading
- 2.3 Types of Reading
- 2.4 Methods of Teaching Reading
- 2.5 Reading and Its Surrender value

**Unit – 3 : Teaching of Phonetics and Spoken English (12 Hours)**

- 3.1 The English Language: Spoken English in India
- 3.2 The Speech Mechanism - Speech Organs - Mobile and Immobile Organs of Speech
- 3.3 The description of Speech Sounds – Vowels and Consonants: Phonetic Symbols – RP and GIE
- 3.4 Features of connected Speech: Strong and Weak forms, Accent, Rhythm and Intonation
- 3.5 Phonetic Transcription

**Unit – 4 : Modern English Grammar and Usage – I (12 Hours)**

- 4.1 Auxiliaries in English
- 4.2 Finite and Non-finite form of Verbs
- 4.3 Strong and Weak forms of Verbs
- 4.4 Tense and Voice
- 4.5 Phrasal Verbs and Prepositional Verbs

**Unit – 5 : Analysis of Reader in English (12 Hours)**

- 5.1 Language Components of the Content of IX Standard English Reader of Tamil Nadu Textbook and Educational Services Corporation. [www.textbooksonline.tn.nic.in](http://www.textbooksonline.tn.nic.in)

**References**

- 1. Arnold, G.F. (1973). *English pronunciation practice*. London: Oxford University Press.
- 2. Connor, J.D.O. (1997). *Better english pronunciation*. London: Cambridge University Press.
- 3. Collins, A. (1991). *Three different views of students: The role of technology in assessing student performance* (Technical Report No. 12). New York: Bank Street College of Education.
- 4. Daniel, J. (1987). *An introduction to english pronunciation*. London: Oxford University Press.
- 5. Geoffrey, L., & Stratbike, J. (1975). *A communicative grammar of english*. London: Cambridge University Press.
- 6. Gleninning, E.H., & Holstrom, B. (1992). *Study reading: A course in reading skills for academic purposes*. London: Cambridge University Press.
- 7. Randolph, Q., & Sydneybaum. (1973). *A university grammar of english*. London: Longman.

8. Sarah, F. (1984). *Written communication in english*. London: Orient Longman.
9. Shirley, Q., & Irvings, S. (1991). *Active reading in the arts and sciences*. London: Allen and Becon.
10. Stannard, A.W. (1981). *Living english speech*. London: Orient Longman.
11. State Council of Educational Research and Training. (2018). *English course book, IX Standard*. Chennai: Tamil Nadu Textbook and Educational Services Corporation. [www.textbooksonline.tn.nic.in](http://www.textbooksonline.tn.nic.in)

**Mapping of Course Outcomes (COs) with Programme Outcomes (POs)**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	3		3		2	3		2	3
CO2	2	2	3	3			3			2
CO3	3	3		3	3				2	3
CO4	3		2	3	3					3
CO5	3		2	3		3			2	3

**3 - High Correlation****2 - Moderate Correlation****1 - Low Correlation**

## B1 P2 41 - PEDAGOGY OF HISTORY - PAPER I

### Preamble

The aim of this course is to enable the student teachers as good teaching professional in History by providing knowledge of teaching methods and techniques in teaching and learning and effective practices in teaching skills.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	examine the nature and scope of History.
CO2	enumerate the aims, objectives and values of teaching History.
CO3	develop the teaching skills in History.
CO4	acquire knowledge of various methods and techniques of teaching History.
CO5	prepare lesson plan, unit plan, year plan and individualised instruction materials.

### Unit - 1 : History – Nature and Scope

(12 Hours)

- 1.1 Definition, Meaning, Nature and Scope of History
- 1.2 Structure, Forms and Dimensions of History - Time, Space, Continuity and Development.
- 1.3 History of History - Greeks, Romans, British, The Age of Intellectualism
- 1.4 Different Conceptions of History - Record of the Past, Biographical Conception and Evolutionary Conception.
- 1.5 History - a Science or an Art?

### Unit – 2 : Aims, Objectives and Values of Teaching History

(12 Hours)

- 2.1 Aims and objectives of teaching history
- 2.2 General and Specific objective of teaching history.
- 2.3 Objectives - Bloom's Taxonomy of Objectives in specific behavioural terms – Cognitive, Affective and Psycho-Motor Domains.
- 2.4 Values of teaching history – Practical, Cultural, Ethical, Intellectual, Political and Educational.
- 2.5 Aims and Objectives of teaching History at Primary, Secondary, Higher Secondary level.

### **Unit – 3 : Micro Teaching**

**(12 Hours)**

- 3.1 Meaning and Definition of Micro teaching.
- 3.2 Principles of Traditional methods
- 3.3 Micro Cycle, Merits and Demerits
- 3.4 Relevant Skills–Skill of Stimulus Variation, Skill of Reinforcement, Skill of Questioning, Skill of Explaining and Skill of Blackboard Writing.
- 3.5 Organization and Implementation of micro teaching – Micro lesson and Link Lesson

### **Unit - 4 : Methods and Techniques of Teaching History**

**(12 Hours)**

- 4.1 Methods – Lecture method, Textbook method, Biographical method
- 4.2 Inductive and Deductive methods
- 4.3 Techniques – Assignment, Seminar, Symposium, Panel Discussion, Team teaching, Supervised Study, Group study and Workshop.
- 4.4 Activity methods – Problem solving, Project method, Dramatization and Source method.
- 4.5 Activity Based Learning (ABL) – Active Learning Method (ALM), Advanced Active Learning Method (AALM) – Its application to History.

### **Unit – 5 : Planning for Instruction and Individualised Instruction (12 Hours)**

- 5.1 Lesson Planning – specific instructional objectives (knowledge, understanding, application and skills), Need, Principles, Herbartian Steps
- 5.2 Year plan, Term plan, Monthly plan, Weekly plan and Unit plan
- 5.3 Programmed Instruction
- 5.4 Computer Assisted Instruction
- 5.5 Personalised System of Instruction

### **References**

- 1. Brint, S. (1998). *School and society*. India: Sage.
- 2. Kaushik, V. (1997). *Essentials of teaching and learning*. India: Bhargava.
- 3. Kochhar, S.K. (1997). *Teaching history*, India: Bhargava.
- 4. Kochhar, S.K. (1998). *Teaching social studies*. India: Bhargava.
- 5. Kohli, A.S. (1996). *Teaching of social studies*. India: Bhargava.
- 6. Lynton, R.P. (1998). *Social science in actual practice*. India: Sage.
- 7. Mangal, S. K. (2005). *Educational technology*. Ludhiana: Tandon.

8. Mangal ,S.K., & Mangal,U. (2010). *Essentials of educational technology*. New Delhi: PHI Learning.
9. Pandey, S. K., & Sharma, R. S.(2004). *Encyclopaedia of modern techniques of teaching*. New Delhi: Commonwealth.
10. Saraswathi, T.S. (1999). *Culture, socialisation and human development*. India: Sage.
11. Mahonty, S.M. (2004 ). *Teaching of social studies*. Meerut: Surya.
12. Sharma, S. (1998). *Textbooks and schools*. India: Bhargava.
13. Singh, L.C., & Sharma, R.D. (1987). *Micro teaching - Theory and practice*. India: Bhargava.
14. Verma, R. (1998). *Modern trends in teaching technology*. India: Bhargava.

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2			3				2	2	2
CO2	2		2	3	2	3	2	2		
CO3	3	2		3	2				2	2
CO4	2	2		3	2			2		
CO5	3	2		3	2				2	

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## **B1 P2 51 - PEDAGOGY OF MATHEMATICS - PAPER I**

### **Preamble**

The aim of this course is to recognize the importance of teaching Mathematics in relation to other disciplines, as well as to write instructional objectives, lesson plans, micro-teaching, various methods and approaches.

### **Course Outcomes (COs)**

On the successful completion of the course, student-teachers will be able to

CO1	explain the meaning of Mathematics, its development, and the necessity and importance of teaching Mathematics in relation to other disciplines.
CO2	formulate instructional objectives in behavioural terms using Bloom's Taxonomy and apply in classroom transactions.
CO3	attain and implement micro-teaching techniques in the teaching and learning process.
CO4	design and develop year plan, unit plan and traditional and digital lesson plans by applying knowledge of planning.
CO5	apply various methods and approaches used in mathematics and experiment the instructional process.

### **Unit - 1 : Introduction to Teaching Mathematics**

**(12 Hours)**

- 1.1 Meaning of Mathematics - Application of mathematics in measurement and evaluation.
- 1.2 Development of mathematics - contributions of mathematicians.
- 1.3 Mathematics and its relationship with other disciplines.
- 1.4 Need and importance of teaching mathematics at primary, secondary and higher secondary level
- 1.5 Uses of multi-disciplinary approach in teaching mathematics.

### **Unit - 2 : Aims and Objectives of Teaching Mathematics**

**(12 Hours)**

- 2.1 Aims of teaching mathematics - practical, social, disciplinary, and cultural aims - need and importance.
- 2.2 General Instructional Objectives (GIOs) – principles – writing of instructional objectives.
- 2.3 Specifications (SIOs) – meaning and principles - writing of specifications - objective based instruction.

- 2.4 Relationship between objectives, learning experience and evaluation - classroom objectives of teaching mathematics.
- 2.5 Bloom's Taxonomy of Educational objectives related to cognitive, affective and psychomotor domains.

**Unit - 3 : Micro teaching and Macro teaching (12 Hours)**

- 3.1 Micro teaching - historical development - need and importance
- 3.2 Meaning - Definition - Objectives - Characteristics of micro teaching.
- 3.3 Steps and procedure of micro teaching - micro teaching cycle - advantages and disadvantages of micro teaching.
- 3.4 Major micro teaching skills - skill of explaining, stimulus variation, black board writing, reinforcement, illustrating with example.
- 3.5 Macro teaching - Meaning - Nature - its importance in teaching.

**Unit - 4 : Planning - Year plan, Unit plan and Lesson plan (12 Hours)**

- 4.1 Planning - concept - nature - need and importance of planning
- 4.2 Year plan - meaning - importance - steps in year planning - year planning in new approach of curriculum transaction.
- 4.3 Unit plan - meaning - importance - principles and steps - unit planning in new approach.
- 4.4 Lesson Plan - need - components - steps in preparing lesson plan
- 4.5 Comparing year plan, unit plan and lesson plan - advantages and limitations.

**Unit - 5 : Methods and Approaches of Teaching Mathematics (12 Hours)**

- 5.1 Learner centered approaches - inductive, deductive, analytic, synthetic, laboratory method.
- 5.2 Activity centered approaches - Heuristic approach, project method, programmed instruction.
- 5.3 Activity Based Learning (ABL), Active Learning Method (ALM), Advanced Active Learning Method (AALM) - its applications in mathematics.
- 5.4 Devices in teaching Mathematics - oral work, written work, drill work and review.
- 5.5 Models of teaching - Concept attainment model, Advance organiser Model, Inquiry Training Model



## Practical

- Collection of biographies of different mathematicians and history of symbols.
- Preparation of unit plan and lesson plan.
- Practice of skills in Micro teaching
- Preparation of no-cost teaching aids
- Preparation of instructional material.
- Collection of rural based mathematical anecdotes.
- Preparing teaching aids using Paper folding and Paper cutting
- Collection of mathematical puzzles, riddles, etc.,

## References

1. Bijay Krishna, J. (2007). *Managing pupil learning in mathematics*. Hyderabad: Mohit.
2. Cooney. T.J., Davis, E.J., & Henderson, K.B. (1975). *Dynamics of teaching secondary school mathematics*. Boston: Houghton.
3. Costello. (1991). *Teaching and learning of mathematics*. London: Routledge.
4. Deepak Dayal. (2007). *Modern methods of teaching mathematics*. APH.
5. Dhand, H. (2009). *Techniques of teaching*. New Delhi: APH.
6. Ernest, P. (1989). *Mathematics teaching- The state of the art*. London: Faimor.
7. Gagne, R.M. (1990). *The learning principles. Analysis of concept learning*. Ed. by Herbert Klausmeier., & Chester W. Harris. New York: Merrill.
8. Kulshrestha, A.K. (2012). *Teaching of mathematics*. Vinay Rakheja.
9. Mangal, S.K. (2001). *Foundations of educational technology*. Ludhiana: Tandon.
10. Menka Minocha. (2010). *Teaching of mathematics*. Vinay Rakheja.
11. Muthaiah, N. (2004). *Magic square* (Tamil). Coimbatore, India: Extension Department, Sri Ramakrishna Mission Vidyalaya College of Education.
12. Muthaiah, N., & Dharmarajan. T. (2010). *Romping of numbers*. Hyderabad: Neelkamal.
13. Oosterhof, A.C. (1990). *Classroom applications of educational measurement*. Ohio: Merrill.
14. Passi, B.K., & Lilita, M.A. (1976). *Micro - teaching: Theory and research*. Dehradun: Jugul Kishore.
15. Pirie, S. (1987). *Mathematics investigations in your classroom*. London: Macmillan.
16. Siddiqui, M.H. (2009). *Techniques of teaching*. New Delhi: APH.
17. Slavin, R.E. (1992). *Cooperative learning: Theory and practice*. Boston: Allyn & Bacon.

## Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1		2	1	3	1	1			1	2
CO2	3	1		2			2		1	1
CO3	3			2	1		1			
CO4	1	2		1		2				3
CO5	1	2	1	3					1	2

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## B1 P2 61 - PEDAGOGY OF PHYSICAL SCIENCE - PAPER I

### Preamble

The aim of this course is to develop an understanding of the introduction of physical science, objectives, micro-teaching skills, unit plan, lesson plan and teaching content in physical science.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	explain the nature of Physical Science and correlate Science with other subjects and summarize the contribution of scientists.
CO2	describe the aims and objectives of teaching Physical Science based on Blooms taxonomy of instructional objectives.
CO3	define different stages of the micro teaching cycle and demonstrate various micro teaching skills.
CO4	differentiate between unit plan and lesson plan, prepare digital lesson plan following Herbartian steps.
CO5	describe Science concepts in VIII Standard textbook and prepare relevant teaching aids.

### Unit – 1 : Introduction to the Physical Science Education (12 Hours)

- 1.1 Meaning and Concept of Physical Science Education.
- 1.2 Nature and Scope of Physical Science.
- 1.3 Importance and Place of Physical Science in the School Curriculum
- 1.4 Inter disciplinary approach in the Teaching of Physical Sciences.
- 1.5 Contribution of scientists towards development of Physical sciences  
 Indian Scientists: Aryabhata, C.V.Raman, J.C. Bose, Satyendra Nath Bose, S Chandrasekar, Vikram Sarabhai, APJ Abdul Kalam, R Venkataraman  
 Western Scientists : Albert Einstein, Isaac Newton, Stephen Hawking, Marie curie, Michael Faraday, Ernest Rutherford.

### Unit – 2 : Aims and Objectives of Teaching Physical Science (12 Hours)

- 2.1 Aims of Teaching Physical Science.
- 2.2 Aims of teaching Physical Science at Different Stages of school Education.
- 2.3 General and Specific Objectives of teaching Physical Sciences

- 2.4 Bloom's Taxonomy of Educational Objectives (Cognitive, Affective and Psychomotor) in teaching Physical Science, Modified Bloom's Taxonomy
- 2.5 Aims and objectives of Teaching Science as Suggested by Various Committees and Commission of India.

**Unit – 3 : Micro Teaching Skills (12 Hours)**

- 3.1 Meaning, definition and characteristics of Micro-teaching.
- 3.2 Principles and Steps in Micro-teaching.
- 3.3 Micro teaching cycle - Merits and Demerits of Micro teaching
- 3.4 Link practice: Need for link lessons(Integration of teaching skills) - Identification of Teaching Skills
- 3.5 Relevant skills in Micro teaching-Skill of Introduction, Skill of Explaining, Skill of Stimulus Variation, Skill of Reinforcement, Skill of Questioning, Skill of using Blackboard, Skill of Demonstration, Skill of Achieving Closure

**Unit – 4 : Unit Plan and Lesson Planning (12 Hours)**

- 4.1 Unit Plan -Meaning -steps and characteristics - unit formation in Physical Science
- 4.2 Importance and advantages - Demerits and limitations of unit planning.
- 4.3 Lesson Planning - Definition - developing a lesson plan and its importance.
- 4.4 Steps involved in Lesson Planning- Herbartian steps and Preparing Lesson Plans and digital lesson plan
- 4.5 Comparison of lesson plan and unit plan - tips for lesson preparation and presentation.

**Unit – 5 : Teaching of Content in Physical Science at Standard VI & VII (12 Hours)**

- 5.1 Measurement- SI units, measurement of time, measuring liquids, Motion-circular motion, rotational motion, periodic motion, speed, distance, velocity
- 5.2 Types of energy: mechanical energy, chemical energy, electrical energy, heat energy, solar energy and its uses
- 5.3 Light, Sources of light, Propagation of light, Transparent, Translucent and Opaque objects, heat: sources of heat, friction, heat and temperature, light, Mirror
- 5.4 Periodic and Non-Periodic Changes - separation of Substances - Methods of separation of insoluble solids from liquids Cement and its uses - Uses of cement

- 5.5 Plastics- Types and uses of plastics -Plastics and environment - Glass and its uses-Soap -preparation and uses- Types of fibres and uses- Natural fibres - Synthetic fibres
- 5.6 Matter in our surroundings, effect of temperature on solid, liquid and gas, acids, bases and salts used in our daily life - fire control

### Practical:

- Collecting materials related to contribution of Eminent Scientists.
- Preparation of life history in physical science scientist.
- Preparing Unit plan and Resource materials.

### References

1. Bhatnagar, A.D. (2004). *Teaching of science*. Meerut: Surya.
2. Frost Jenny., & Turner Tony. (2005). *Learning to teach science in the secondary school* (2nd ed). New York : Routledge Palmer.
3. Gupta, S.K. (1985). *Teaching of physical science in secondary schools*. New Delhi: Sterling.
4. Heiss Obourn., & Hoffman. (1985). *Modern science in secondary schools*. New Delhi: Sterling.
5. Jenkins, E.W. (1997). *Innovations in science and technology education*. Paris: UNESCO.
6. Mangal, S.K. (2004). *Teaching of physical science*. New Delhi : Arya.
7. Nayak. (2003). *Teaching of physics*. New Delhi: APH.
8. Pandey, (2003). *Major issues in science teaching*. New Delhi: Sumit.
9. Passi, B.K. (1998). *Becoming a better teacher: Micro teaching approach*. Baroda: Centre for Advanced Study in Education.
10. Radha Mohan. (2011). *Teaching of physical science*. New Delhi: Neelkamal.
11. Rajan. S. (2012). *Methodology of teaching science*. New Delhi: Dorling Kindersley.
12. Sharma, P.C. (2006). *Modern science teaching*. New Delhi: Dhanpat Rai.
13. Sonika, R. (2012). *Methodology of teaching science*. New Delhi: Dorling Kindersley.
14. Vanaja. M. (2006). *Methods of teaching physics*. New Delhi: Discovery.
15. Yadav, M.S. (2003). *Teaching of science*. New Delhi: Anmol.

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3			1		2			1	
CO2		2	3					1		
CO3				1			2			3
CO4	3	2		1	2					
CO5	3	2		1		2		2		2

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## **B1 EPC 1 - UTILIZING LIBRARY AND DIGITAL LEARNING RESOURCES**

### **Preamble**

The aim of this course is to develop an understanding of the concepts of Library and important learning resources, different methods and types of reading resources, enable easy access to reading resource and develop skills.

### **Course Outcomes (COs)**

On the successful completion of the course, student-teachers will be able to

CO1	know the basic concepts of Library and important learning resources.
CO2	analyse various electronic and digital educational resources and apply them in teaching-learning.
CO3	identify various reading resources and adopt them in life- long learning.
CO4	familiar with important library services and develop Library Ethics for the Professional Development.
CO5	recognize Information Literacy Skills and Develop Library ethics.

### **Unit – 1: Introduction to Use of Library (6 Hours)**

- 1.1 Hierarchy of Information - Data, Information, Knowledge and wisdom
- 1.2 Library-meaning, definition, types, sections, functions and objectives of the library
- 1.3 Laws of Library Science – its applications in libraries
- 1.4 User Education - educating the learners – ways of optimal utilisation of library
- 1.5 Conducive library environment – reading, preparing teaching-learning sources and other academic purposes.

### **Unit – 2: Information Sources and their Uses in learning and teaching (6 Hours)**

- 2.1 Books - Structure, parts, ways of handling, methods of using books/Journals - ISBN, ISSN
- 2.2 Sources of Information - Types of reference sources - Primary and Secondary sources and their uses.
- 2.3 Electronic resources - e-books, e-journals, e-learning resources
- 2.4 Web learning resources: Web portals, subject gateways in teacher education
- 2.5 Library Networks & Consortia – ERNET, INFLIBNET, DELNET, FORSA, HELINET, INDEST, IIM's Library Consortia

### **Unit – 3: Types of Reading Resources (6 Hours)**

- 3.1 Types of reading resources - Reading for task-oriented and pleasure.
- 3.2 General reading resources: newspaper, magazines, novels and fictions
- 3.3 Task-oriented reading resources - text books, reference books, journals, biographies

3.4 Ways and means of utilizing reading resources: Print, ICT

3.5 Library Services for Special need users

#### **Unit – 4: Enabling Easy Access to Reading Resources (6 Hours)**

4.1 Library services - Library orientation – Book bank and its uses - Reference service

4.2 Current awareness service - selective dissemination of information

4.3 Translation service, Bibliographic service

4.4 Indexing and abstracting services – online service

4.5 Preservation & Conservation of documents

#### **Unit – 5: Reading and Reflections (6 Hours)**

5.1 Library resources for classroom interaction – motivating readers - encouraging reading habit.

5.2 Enabling information literacy skills – user ethics.

5.3 Review of articles in newspaper and magazines

5.4 Review of Journal articles

5.5 Review of Books

#### **References**

1. Krishan Kumar. (2004). *Library manual*. New Delhi: Vikas.
2. Krishan Kumar. (2008). *Library administration and management*. New Delhi: Vikas.
3. Kumaresan, S. C. (2004). *Library science unleashed*. Tiruchi: Rockcity.
4. Mittal, R.L. (2007). *Library administration*. New Delhi: Ess Ess.
5. Mishra, L. (2008). *Automation and networking of libraries*. New Delhi: New Age International.
6. Ranganathan, S.R. (2008). *Library manual*. New Delhi: Ess Ess.
7. Ranganathan, S.R. (1992). *Library book selection*. Bangalore: Sarada Ranganathan Endowment for Library Science.
8. Ranganathan, S.R. (1999). *Colon Classification*. (6th ed). Bangalore: Sarada

#### **Mapping of Course Outcomes (COs) with Programme Outcomes (POs)**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2						3			
CO2	1	3	1	2						
CO3	2									3
CO4	3			2		3				
CO5	2					3			3	

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## SEMESTER II

<b>Group A : Perspectives in Education</b>	
B2 CC 05	Emerging Challenges in Indian Education
B2 CC 06	Learner and Learning -II
B2 CC 07	Educational Technology
B2 CC 08	Peace Education
<b>Group B : Curriculum and Pedagogical Studies</b>	
<b>Pedagogy 1</b>	
B2 P1 12	Pedagogy of English – Paper II
B2 P1 22	Pedagogy of Computer Science – Paper II
B2 P1 32	Principles of Commerce and Accountancy Education – Paper II
<b>Pedagogy 2</b>	
B2 P2 12	Pedagogy of Biological Science – Paper II
B2 P2 22	Pedagogy of Commerce and Accountancy – Paper II
B2 P2 32	Pedagogy of Special English – Paper II
B2 P2 42	Pedagogy of History – Paper II
B2 P2 52	Pedagogy of Mathematics – Paper II
B2 P2 62	Pedagogy of Physical Science – Paper II
<b>Group C : Enhancing Professional Capacities (EPC)</b>	
B2 EPC 2	Drama and art in Education
B2 EPC 3	Health, Physical Education and Yoga

## B2 CC 05 - EMERGING CHALLENGES IN INDIAN EDUCATION

### Preamble

The aim of this course is to develop capability of formulating possible good solutions to the challenges and issues in Indian education by realizing the salient features of emerging trends in education.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	elucidate the salient features of emerging trends and special problems of pre-primary education.
CO2	describe the salient features of emerging trends in education, issues and challenges at primary level.
CO3	identify the emerging trends in secondary, higher secondary and higher education.
CO4	realise the importance of teacher education in India.
CO5	provide the solutions to the challenges in Indian education.

### Unit - 1: Pre - Primary Education: Issues and Challenges (12 Hours)

- 1.1 Pre-Primary: Meaning, Aims, Objectives, Need and Importance.
- 1.2 Pre - Primary Schools: Types, objectives - Curriculum and Methods of instruction.
- 1.3 Recommendations of Commission: Sergeant, Secondary Education, Education Commission (1966).
- 1.4 Problem: Objectives, Curriculum, trained staff methods and Instructional Methods and awareness, Free Education compulsory priority, eligibility.
- 1.5 Roles of ICDS, TINP, and chief ministers Nutritious Meal scheme in Child welfare program.

### Unit - 2: Primary Education: Issues and Challenges (12 Hours)

- 2.1 Primary: Meaning, Aims, Objectives, Need and Importance.
- 2.2 Providing Educational Opportunities: Endeavours.
- 2.3 New Education Policy on primary Education.
- 2.4 Implementation of compulsory Primary Education impediment.
- 2.5 Roles of National and international Programme in implementation of Compulsory Primary Education.



**Unit - 3: Secondary, Higher Secondary and Higher Education (12 Hours)**

- 3.1 Secondary, Higher Secondary and Higher Education: Meaning, Aims, Objectives, Need and Importance
- 3.2 Problem of quality in Secondary and higher secondary Schools.
- 3.3 National and international commissions reports on higher Secondary Education, Vocationalization –emphasis on the development – Role of NCERT.
- 3.4 Higher Education – Meaning, concept and importance commissions reports – Problems and issues.
- 3.5 Process of improving quality of curriculum, Methods and research in higher Education.

**Unit - 4: Teacher Education (12 Hours)**

- 4.1 Teacher Education: Meaning, Aims, Objectives, Need and Importance.
- 4.2 Selection for Training, Professional Preparation at different Levels, improvement and Expected outcomes (NCTE).
- 4.3 Enhancing Professional efficiency – agents of teacher education at State and Central level
- 4.4 Problems in Teacher Education and remedial measures.
- 4.5 In-service Education – Definition, Meaning, Concept, Need important Problems and Suggestions.

**Unit - 5: Aspects of Challenges in Education (12 Hours)**

- 5.1 Women Education: Meaning, objectives and importance. Significant Problems of Women, Place of women in economic and national development, practical activities for women development.
- 5.2 Population Education: Meaning, Objectives, and importance. Introducing contents of Population Education at Primary, Secondary and higher education level, Present status – Factors affecting – remedial Measures for Controlling Population, small family norms, advantages.
- 5.3 Language Problems: Need, Meaning, Forms, different facets, Link Language of Minorities, Place of English - Recommendations of Eswar Patel Committee and Classical Languages.
- 5.4 Health Education: Need, Importance, Objectives and scope - Problems in School health Programme remedial Measures.

- 5.5 Environmental Education: Definition, Meaning, Need, Importance and Scope. Role of Teacher in Meeting the Challenges of air water, Land and Noise Pollution - effects on human, animals and Plants - constitutional Provisions to Environmental Protection – role of individual, Public and Government – Recent Trends in Environmental Education.

### References

1. Aggarwal, J.C. (1992). *Development and planning of modern education*. New Delhi: Vikas.
2. Aggarwal, K.C. (2001). *Environmental biology*. Bikaner: Nidi.
3. Arumugam, N. (1998). *Concepts of ecology*. Nagarcoil: Sara.
4. Bhat. B.D (1996). *Educational document in India*. New Delhi : Arya.
5. Bhatia, K., & Bhatla, B. (1997). *The philosophical and sociological foundations*. New Delhi: Doaba House.
6. Biswas, A. (2006). *Education in India*. New Delhi: Arya.
7. Biswas, A., & Aggarwal, J.C. (2004). *Education in India*. New Delhi: Arya.
8. C.P.R. Environmental Education Center. *Noise pollutions*. Madras: Aiyar Foundations.
9. C.P.R. Environmental Education Center. *Water a book*. Madras: Aiyar Foundations.
10. Gleick, H.P. (2006). *Water in developmental environment and securicts*. Indian Institute of Ecology and Environmental occasional Monograph.
11. Mckinney, M.L & Schocb, R.M. (2004). *Environmental science system and solutions*. Web enhanced edition.
12. Mohanty, J. (1993). *Indian education in the emerging society*. New Delhi: Sterling.
13. Mohanty, J. (2003). *Teacher education*. New Delhi: Deep & Deep.
14. Murty, S.K. (1988). *Contemporary Problems and Current Trends in Education*. Ludhiana: Prakash Brothers Educational Publishers.
15. Ravikrishnan. (2005). *Environmental science and engineering*. Chennai: Sri Krishna.
16. Reddy, K.P., & Reddy, D.N. (2002). *Environmental education*. Hyderabad: Neelkamal.
17. Sapra, E.L., & Aggarwal, A. (2007). *Education in India: Some cultural issues*. New Delhi: National Book organization.
18. Sharma, B.L., & Maheshwari, B.K. (2006). *Education for values, environment & human rights*.
19. Shashi Parabha Sharma. (2005). *Teacher education principals, theories and practices*. New Delhi: Kanishka.
20. Shrivastaa, K.K. (2004). *Environmental education principles, concepts and management*. New Delhi: Kaniska.
21. Singh, Y. K. (2010). *Primary and secondary education*, New Delhi: APH.

22. Srinivasa Ayaengar, S . (1995). *Topics on education*. Tamil Nadu : Sundaram.

23. *UNICEF Report on Primary Education*. (1999). Paris.

**Mapping of Course Outcomes (COs) with Programme Outcomes (POs)**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2		2	3	2		2			2
CO2	2		2	3	2		2		2	2
CO3		2	2	3	2		2	2	2	2
CO4	2	2	2	3		2	2		2	2
CO5	2		2	3					2	2

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## B2 CC 06 - LEARNER AND LEARNING II

### Preamble

The significant aims of this course are two folded. First it enables the student teachers to understand the adolescence, post adolescence characteristics problems and help the to acquire a clear concept of competence (motivation). Secondly it enables them to gain knowledge about personality, adjustment and mental health.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	remember adolescent, post adolescent characteristics and their problems. Develop discipline and character among adolescent learners.
CO2	analysis and Synthesis sources of learner's motivation and apply it properly in the classroom to enhance pupil participation and their academic achievement.
CO3	remember self-efficacy theory and achievement motivation theory to create the conditions favourable for achievement motivation.
CO4	understand various psychological attributes responsible for individual difference among learners and apply Multiple Intelligences approach for enhanced teaching.
CO5	assess learner's personality, understand the sources which create conflict frustration among learners.

### Unit – 1: Adolescence and Group Behaviour (12 Hours)

- 1.1 Stages of development – Erickson's theory - Adolescence – Characteristics.
- 1.2 Problems of adolescence – psychological, emotional and educational.
- 1.3 Discipline and character development.
- 1.4 Leadership and group behaviour.
- 1.5 Social groups – meaning and characteristics – types – school and classroom as a social group.

### Unit – 2: Motivation (12 Hours)

- 2.1 Biological and psychological needs as determinants of behaviour.
- 2.2 Motives and their kinds: Innate motives, acquired motives, social motives and personal motives.
- 2.3 Theories of motivation - Maslow's self-actualization theory.
- 2.4 Principles of motivation - achievement motivation.
- 2.5 Techniques of motivating learners – arousal of motives.

**Unit – 3: Individual Differences among Learners (12 Hours)**

- 3.1 Psychological attributes – Interest, aptitude, attitude, intelligence and creativity.
- 3.2 Intelligence (Spearman, Thurstone, Thorndike and Guilford)
- 3.3 Multiple intelligences (Gardner) – Emotional Intelligence(Goleman)
- 3.4 Creativity – types of creativity
- 3.5 Measures of intelligence and creativity – implications for teaching – learning in the light of changing concepts.

**Unit – 4: Personality and Adjustment (12 Hours)**

- 4.1 Personality – Definition – meaning – influencing factors.
- 4.2 Theories of personality: Psychoanalytic theory and socio psychological theory.
- 4.3 Assessment of personality – Integrated personality – Development of Personality.
- 4.4 Adjustment – definition – adjustment as achievement or process.
- 4.5 Areas of adjustment - characteristics of a well-adjusted person.

**Unit – 5: Mental Health and Hygiene (12 Hours)**

- 5.1 Meaning of mental health and mental hygiene - ways to preserve mental health.
- 5.2 Characteristics of a mentally healthy individual – Foundations of mental health.
- 5.3 Frustration and types of conflicts – Defence or Adjustment mechanisms.
- 5.4 Need for guidance and counselling – identification of children with counselling needs
- 5.5 Types of counselling (directive, client-centered, behavioural, gestalt and eclectic)

**References**

- 1. Berk, L.E. (2003). *Child development* (6th ed.). New Delhi: Prentice Hall of India.
- 2. Brehm, S.S., Kassir, S.M., & Fein, S. (2002). *Social psychology*. New York: Houghton Mifflin.
- 3. Brown, P.C (et.al) (2019). *Make it stick: Science of successful learning* (First Edition). New York: Belknap Press
- 4. Cobb, N.J. (2001). *Adolescence – continuity change, diversity*. California: Mayfield.

5. Jain, M. (2010). *Encyclopedia of educational psychology*. New Delhi: Anshah.
6. Morric, C.G., & Maisto, A.A. (2001). *Understanding psychology*. New Jersey: Uppaer Saddle River.
7. Pasricha, S. (2005). *Teaching of psychology – New trends and innovations*. New Delhi: Deep and Deep.
8. Pines, A.M., & Maslach, C. (2002). *Experiencing social psychology*. New Delhi: Mc Graw Hill.
9. Rao, N. (2008). *Counselling and guidance* (2nd ed.). New Delhi: Mc Graw Hill.
10. Sing, Y. (2005). *Psychology in education*. New Delhi: APH.
11. Sousa, D.A. (2020). *How the brain learns* (Fifth Edition). New York: Corwin.
12. Weiner, B. (1980). *Human motivation*. New York: Holt, Rinehart & Winston.

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1						3				
CO2	3									
CO3	3									
CO4					3					
CO5							3			

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## **B2 CC 07 - EDUCATIONAL TECHNOLOGY**

### **Preamble**

To stimulate prospective teachers in effective usage of educational technology and its concepts in real time classrooms.

### **Course Outcomes (COs)**

On the successful completion of the course, student-teachers will be able to

CO1	recognise the concept of education technology.
CO2	manipulate the knowledge of hardware and software in educational technology.
CO3	adapt the skills of Communication techniques in classroom situation.
CO4	practice and develop computer operations and networking.
CO5	demonstrate and use the multimedia devices and their applications in education.

### **Unit – 1: Introduction to Educational Technology (12 Hours)**

- 1.1 Educational technology - definition, meaning, nature, objectives and scope.
- 1.2 Teaching technology - principles and characteristics - contents of teaching technology.
- 1.3 Instructional technology - setting of instructional objectives – criteria for selecting the material, media and method.
- 1.4 Development of educational technology – teaching technology vs. instructional technology.
- 1.5 Systems approach - concept, scope in educational technology - steps in systems approach - instructional system.

### **Unit - 2: Hardware and Software Teaching Aids (12 Hours)**

- 2.1 Meaning - concept principles in use of hardware and software.
- 2.2 Hardware approach- software approach- hardware vs. software approach
- 2.3 Role of hardware - individualized instruction and small group instruction.
- 2.4 Educational Channels – Kalvi Television - Open Educational Resources (OER) - Creating and sharing OER materials.
- 2.5 Computers and Internet - Interactive Boards – Online tools – Screencast, Podcast, E-lesson Plan, E-portfolio, Digital Concept Maps and animation tools.

**Unit - 3: Communication Technology (12 Hours)**

- 3.1 Communication - definition, characteristics, process and sources of communication.
- 3.2 Communication cycle - theories of communication - principles of communication
- 3.3 Classroom communication - verbal, non-verbal communication - planning classroom communication - role of teacher - design and presentation
- 3.4 Barriers of communication - internal and external - overcoming barriers for effective communication.
- 3.5 Interactivity in communication - objectives - use of interactive media - interactive radio - audio conferencing - video conferencing

**Unit - 4: Computer Operation and Networking (12 Hours)**

- 4.1 Computer - uses and its importance - important parts of computer and their specific applications - Input and output devices.
- 4.2 Storage devices - primary and secondary - functional uses - classification.
- 4.3 Networking - concept, types and advantages.
- 4.4 Virtual Classroom & Smart Classrooms - concept, elements, advantages and limitations
- 4.5 Web conferencing tools - Virtual Reality and Augmented Reality in Education.

**Unit - 5: Applications of Multimedia in Classroom (12 Hours)**

- 5.1 Multimedia - meaning- characteristics -features - components - application of multimedia
- 5.2 Programmed Instruction - Computer Assisted Instruction (CAI) - Computer Based Training (CBT) -Web-Based Training (WBT)
- 5.3 Media selection and integration process - need of media selection - factors affecting media selection - procedure for selecting media.
- 5.4 Major institutions of educational technology in India - CIET, EMMRC (AVRC, EMRC and MCRC), IGNOU, SIET, Consortium for Educational Communication (CEC), UGC, their role in education.
- 5.5 Recent trends of Research in Educational Technology and its future with reference to education.



## References

1. Bhoomireddy, N., & Bhatia, K.K. (2004). *Fundamentals of educational technology*. New Delhi: Kalyani.
2. Kumar, K.L (2005). *Educational technology*. New Delhi: New Age International.
3. Leon, A., & Leon, M. (1999). *Fundamentals of information technology*. Chennai: Leon.
4. Mangal, S.K., & Mangal, U. (2010), *Essentials of educational technology*. New Delhi: PHI Learning.
5. Mohanty, J. (2007). *Modern trends in educational technology*. New Delhi: Neelkamal.
6. Panday, V.C. (2005). *Educational technology*. New Delhi: Isha Books.
7. Ram Nath Sharma., & Chandra, S. (2007). *Advanced educational technology*. New Delhi: Atlantic.
8. Ruhela, S.P. (2002). *Education technology*. New Delhi: Indian Publishers Distributors.
9. Sampath. K., Panneerselvam. A., & Santhanam. S. (2008). *Educational technology -Basics and applications*. Chennai: G Publishing Services.
10. Satyanarayana, B., Ramesh Babau, B., Pulla Reddy, V., & Ashok Babau, T. (1998). *Information technology issues and trends*. New Delhi: Cosmo.
11. Sharma, R. A. (2005). *Educational technology*. Meerut: Surya.
12. Vanaja, M., & Rajasekar, S (2006). *Educational technology in computer education* New Delhi: Neelkamal.
13. Vaughan, T. (1997). *Multimedia making it work* (3rd ed.) New Delhi: Tata McGraw Hill.

## Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2	3		3					1	
CO2	1	2		3	3				2	
CO3		3		3	1		2			2
CO4		2		3					2	3
CO5	2	3		3	2				2	2

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## B2 CC 08 - PEACE EDUCATION

### Preamble

The aim of this course is to inculcate the knowledge of peace education and apply the best practices of non-violence, tolerance, equality and social justice in everyday life.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	recognise the meaning, need, aim and objectives of Peace Education and relate the status of Peace Education in curriculum and organisation for global peace.
CO2	justify the non-violence for peace and educational setting to promote peace.
CO3	participate creatively in all aspects of peace studies, peace-building in conflict and their resolutions.
CO4	criticize the Gandhian Philosophy of Peace and Non-Violence and comprehend the Indian context views and perceptions of peace.
CO5	promote the culture of peace and apply the best practices in life.

### Unit – 1: Introduction

(12 Hours)

- 1.1 Introduction to Peace Education - Meaning and concept of Peace
- 1.2 Need for peace education- Aims and Objectives of Peace Education
- 1.3 Status of Peace education in the curriculum
- 1.4 Organizations for Global Peace.
- 1.5 The role of Peace education in developed and developing countries - Adoption of peace education in curriculum at various level.

### Unit – 2: Non Violence for Peace and educational setting

(12 Hours)

- 2.1 Relationship between peace and non-violence.
- 2.2 Role of violence and in our lives and the lives of others
- 2.3 Exposure to non violence through media- Consequences-Crisis and the management.
- 2.4 Psychological factor affecting non violence – strategies to bring about non violence in schools.
- 2.5 Individuals and long term solutions to maintain non - violence.

**Unit - 3: Peace and Conflict Resolution (12 Hours)**

- 3.1 Bases of conflicts - Positive and negative aspects of conflicts
- 3.2 Types of conflict - Learning of conflict management and conflict resolution
- 3.3 Conflict management and conflict resolution.
- 3.4 Role of Peace Education in resolving conflict
- 3.5 Reducing conflicts among students

**Unit - 4: Peace in Indian Context (12 Hours)**

- 4.1 Peace in Ancient Indian Literature – Thirukkural
- 4.2 Emperor Asoka's Kalinga War, Conversion
- 4.3 Propagation of peace – Jainism and Buddhism
- 4.4 Gandhian Philosophy of Peace and Non-Violence Techniques of Non-Violence Resistance.
- 4.5 India: Peace-Loving Country, Policy of Panch Sheel and role of Non-Alignment Movement.

**Unit - 5: Educating for Culture of Peace (12 Hours)**

- 5.1 Ecological Thinking and respect for life (ages 8-12)
- 5.2 Tolerance and respect for human rights (ages 11 to 16)
- 5.3 Critical thinking and active non-violence (ages 12+) - knowledge, attitude and skills to be learnt at classroom activities
- 5.4 Social justice and civic responsibility (ages 14+)
- 5.5 Leadership and global citizenship (ages -16+) - knowledge, attitude and skills to be learnt - classroom activities

**References**

- 1. Aber, J.L., Brown, J.L.A., & Henrich, C.C. (1999). *Teaching conflict resolution- An effective school-based approach to violence prevention*. New York: Columbia University, National Centre for Children in Poverty.
- 2. Adams. (1997). *UNESCO and a culture of peace: Promoting a global movement*. Paris: UNESCO.
- 3. Andrews, M.L. (1992). *Educating for peace making abilities*. Cambridge, MA: Harvard University.
- 4. Bjerstedt, A. (1994). *Peace education - How? A discussion of steps and measures to be taken*. Malmo: School of Education.
- 5. Bondurant, J.V. (1988). *The conquest of violence- The Gandhian philosophy of conflict*. New Jersey: Princeton.

6. Bullard, S. (1996). *Teaching tolerance - Raising open minded, emphathic children*. New York: Doubleday.
7. Diwanar, R.R., & Agrawal, M. (1984). *Peace education* (special issue). New Delhi: Neelkamal.
8. Eisler, J. (1991). *Comprehensive conflict result program*. New York: N.Y.City Board of Education
9. Fountain, S. (1999). *Peace education in UNICEF*. New York:UNICEF.
10. Patel, R.S. (1956). *Educational philosophy of Mahatma Gandhi*. Ahmedabad: Navajivan Trust.
11. Davidson, R. (1982). *The role of education in developed and developing countries for international understanding and peace* : Conference Proceedings, Seoul.

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1			1	3		1	1	1		
CO2	1					3	1	1		
CO3			3			1	1	2		1
CO4			1			2	2	3		1
CO5			1			2	1	2		3

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## **B2 P1 12 - PEDAGOGY OF ENGLISH - PAPER II**

### **Preamble**

The aim of this course is to provide foundation for enhancing second language learning skills especially reading and writing, and reflect on the current practices in English language teaching.

### **Course Outcomes (COs)**

On the successful completion of the course, student-teachers will be able to

CO1	design and develop traditional and digital lesson plans and learning materials.
CO2	gain mastery in intensive reading skill in English.
CO3	develop their extensive reading skill in English.
CO4	examine various methods in teaching English grammar and apply in classroom transaction.
CO5	enhance their language mastery in writing skill and apply in everyday communication.

### **Unit – 1 : Lesson Planning and Preparation of Materials (12 Hours)**

- 1.1 Planning in English Language Classrooms
- 1.2 Outline of a Unit Plan
- 1.3 Lesson Plan – Meaning and Significance
- 1.4 Components and Format of a Traditional and Digital Lesson Plan
- 1.5 Preparation of other materials for teaching learning – traditional and digital materials.

### **Unit – 2 : Teaching of Intensive Reading (12 Hours)**

- 2.1 Teaching of Prose – Objectives – Steps and procedure involved in Teaching of Prose
- 2.2 Types of Vocabulary – Techniques of Teaching Vocabulary
- 2.3 Teaching of Structures – Techniques of Teaching Structures
- 2.4 Teaching of Poetry - Objectives- Steps and procedure involved in Teaching Poetry
- 2.5 Difference between Teaching of Prose and Teaching of Poetry

**Unit – 3 : Teaching of Extensive Reading (12 Hours)**

- 3.1 Teaching of Supplementary Reading - Objectives- Steps and procedure involved in Teaching Supplementary Reading
- 3.2 Organizing Classroom Library
- 3.3 Reading resources: Library- Digital library: e-Newspapers, e- Books, e- Journals.
- 3.4 Strengthening reading skill using print media, mass media and digital media.
- 3.5 Audio-visual Aids used in the English Class – Aural Aids, Visual Aids and Audio-visual Aids.

**Unit – 4 : Teaching of Grammar (12 Hours)**

- 4.1 Teaching of Grammar – Problems in Teaching Grammar
- 4.2 Types of Grammar – Formal and Functional
- 4.3 Procedure involved in Teaching Grammar
- 4.4 Methods of Teaching Grammar: Deductive Method, Inductive Method and Deductive- inductive Method
- 4.5 Language Activities used during English Classes

**Unit – 5 : Teaching of Writing (12 Hours)**

- 5.1 Teaching of Composition as Teaching of Writing
- 5.2 Principles of Composition
- 5.3 Types of Composition – Guided and Free Composition
- 5.4 Procedure involved in teaching Composition
- 5.5 Importance of Composition correction – Symbols used in composition correction

**References**

1. Aggarwal, J.C. (2009). *Essentials of educational technology: Innovations in teaching-learning*, New Delhi: Vikas.
2. Allen, H.B., & Campbell, R.N. (1972). *Teaching English as a second language*. New Delhi: Tata McGraw Hill.
3. Arnold, G.F. (1973). *English pronunciation practice*. London: Oxford University Press.
4. Arora, S. (2012). *English language teaching: Approaches and methodologies*. New Delhi: McGraw Hill.

5. Balasubramanian, T. (1981). *A text book of English phonetics for Indian students*. New Delhi: Macmillan.
6. Baruah, T.L. (1992). *The English teacher's handbook*. New Delhi : Sterling.
7. Bright, J.A., & Mc Gregor, G. P. (1978). *Teaching English as a second language*. Singapore: Longman.
8. Champa, T., & Sasikumar, J. (1996). *Writing with the purpose*. New Delhi: Oxford University Press.
9. Geoffrey, L. N. (1979). *A linguistic guide to english poetry*. London : Longman
10. Harmer, J. (1990). *The practice of English language teaching*. Hong Kong : Longman
11. Kohli, A.L. (2003). *The techniques of teaching English in the new millennium*. New Delhi : Dhanpat Raj.
12. Mowla, S. (2004). *Techniques of teaching English*. Hyderabad: Neelkamal.
13. Robert, L. (1964). *Language teaching: A scientific approach*. New Delhi: Tata McGraw Hill.
14. Saraswathi, V. (1987). *Organised Writing*. New Delhi: Longman.
15. Saraswathi, V. (2005). *English language teaching – Principles and practice*. Hyderabad: Orient Longman.
16. Sharma, R.N. (2008). *Contemporary teaching of english*. New Delhi: Surjeet.
17. Thompson, M.S.H. (2003). *Teaching of English*. New Delhi: DPH.
18. Tickoo, M.L. (2003). *Teaching and learning english*. New Delhi: Orient Longman.
19. Tiwari, S.R. (2006). *Teaching of english*. New Delhi : Ajay Book House
20. Veerendra Mishra. (2016). *English language skills: A practical approach*. New Delhi: Cambridge.
21. Venkateswaran. (1997). *Principles of teaching english*. Bangalore: Vikas.
22. [www.bbc.co.uk/learnenglish](http://www.bbc.co.uk/learnenglish)
23. [www.britishcouncil.org](http://www.britishcouncil.org)
24. [www.teachingenglish.org](http://www.teachingenglish.org)

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	3		3	3	2	2		2	2
CO2	3	2	2	3			2		2	3
CO3	3	2		3					2	3
CO4	2	2	2	3	2	2	2		2	2
CO5	3	3	2	2		2	2		3	3

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## B2 P1 22 – PEDAGOGY OF COMPUTER SCIENCE: PAPER II

### Preamble

The aim of this course is to provide foundation for operating systems and their applications, the application software and its utilities and the elementary ideas on various learning strategies.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	interpret with different number systems and their uses in the functioning of computers.
CO2	organise and acquire knowledge on the operating systems and their applications.
CO3	familiarize with the application software and its utilities.
CO4	understand the concept of 'C' programming.
CO5	integrate the elementary ideas on various learning strategies.

### Unit – 1 : Functioning of Computer – An Insight (12 Hours)

- 1.1 Concept of number systems – Decimal, Binary, Octal and Hexa-decimal numbers
- 1.2 Conversion of numbers from one number system to another
- 1.3 Binary Integer – Addition, Subtraction and Multiplication
- 1.4 Logic Gates – Importance – Types
- 1.5 Computer Arithmetic – Pitfalls in computing

### Unit – 2 : Operating System and its Applications (12 Hours)

- 2.1 Operating System – Functions, development and Types
- 2.2 Concept of Interpreters and Compilers –Utilities
- 2.3 Windows – Importance and Applications
- 2.4 Linux and its applications
- 2.5 Software – Types and Utilities

### Unit – 3 : Application Software – Utilities in Education (12 Hours)

- 3.1 Application Software – Introduction, Utilities, Types
- 3.2 Programming languages – Concepts, Types, Importance
- 3.3 User-Friendly Software (Packages) – Meaning, Types, Utilities
- 3.4 Educational Uses of MS-Word and MS-Excel
- 3.5 Power Point and its Applications in Teaching and Learning



**Unit – 4 : Fundamentals of “C” Programming (12 Hours)**

- 4.1 “C” Language – Introduction and Utilities
- 4.2 Basic elements of “C” Language – Constants, Identifiers, Operators and Key Words
- 4.3 Statements in “C” Language
- 4.4 Programming – Concept on Problem Analysis, Algorithms and Flowcharts
- 4.5 Simple Programme Development in “C”

**Unit – 5: Learning Styles and Computer Science (12 Hours)**

- 5.1 Co-Operative Learning – Concept and advantages in learning computer science
- 5.2 E-Learning – Meaning, Importance and Limitations
- 5.3 M-Learning – Meaning and its applications in learning
- 5.4 Blended Learning – an orientation
- 5.5 Shadow Learning – Concept and its advantages at school level

**Practical**

- 1. Creating text files using MS-Word
- 2. Preparing worksheet with the help of MS-Excel
- 3. Preparing slides using MS-PowerPoint
- 4. Simple programme development in ‘C’

**References**

- 1. Balagurusamy, E. (2006). *Programming in C*. New Delhi: Tata McGraw Hill.
- 2. Beck, L.L.(2004). *System software – An introduction to systems programming* (3rd ed.). New Delhi: Person Education.
- 3. Fiala, R.J. (1999). *Quick reference guide: Microsoft office 2000*. New Delhi: BPB.
- 4. Hancock, L., & Krieger, M. (1987). *The c primer*. Singapore: McGraw Hill.
- 5. Kernighan, B.W., & Ritchie, D.M. (1993). *The c programming language*. New Delhi: Prentice Hall of India.
- 6. Madnick, S.E., & Donovan, J.J. (1987). *Operating systems*. New Delhi: McGraw Hill.
- 7. Radcliffe, R.A. (1992). *Encyclopedia C*. New Delhi: BPB.
- 8. Rajaram, R. (1998). *C programming made easy*. New Delhi: Scitech.
- 9. Rajasekar, S. (2008). *Computer education & educational computing*. Hyderabad: Neelkamal.
- 10. Saxena, S. (2007). *MS-office 2000 for everyone*. New Delhi: Vikas.
- 11. Schildt, H. (1987). *C made easy*. New Delhi: McGraw Hill.

12. Schwartz, K. (2000). *Training guide – Microsoft windows 2000*. DDC.
13. Taylor, G. (2000). *Linux complete*. New Delhi: BPB.
14. Tondo, C.L., & Gimpel, S.E. (2001). *The c answer book*. New Delhi: Prentice Hall.

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	1	3		3					2	
CO2		2	3	3						1
CO3		2		3	2				2	2
CO4	3	2		3					3	2
CO5	2	3		3	3		2			

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## **B2 P1 32 - PRINCIPLES OF COMMERCE AND ACCOUNTANCY EDUCATION - PAPER II**

### **Preamble**

The aim of this course is to provide different strategies, skills and evaluation techniques for the students of Commerce and Accountancy.

### **Course Outcomes (COs)**

On the successful completion of the course, student-teachers will be able to

CO1	develop classroom communication skills for Commerce and Accountancy teaching.
CO2	identify and demonstrate Computer Applications for teaching Commerce and Accountancy.
CO3	apply different learning strategies and approaches in teaching Commerce and Accountancy.
CO4	classify the instructional materials in teaching Commerce and Accountancy.
CO5	construct the achievement test in teaching Commerce and Accountancy.

### **Unit – 1: Communication Techniques (12 Hours)**

- 1.1 Communication – meaning-process of Communication – types of Communication.
- 1.2 Principles of Communication – various Stages in modern Communication-communication techniques.
- 1.3 Barriers of Communication – semantic, psychological/personal and institutional barriers.
- 1.4 Classroom Communication – interaction analysis – important of communication skills required for commerce and accountancy teachers.
- 1.5 Factors influencing classroom communication- classroom discipline.

### **Unit – 2: Computer Applications in Commerce (12 Hours)**

- 2.1 Generation of Computers – input/output devices – hardware and software.
- 2.2 World Wide Web – concepts and applications –search engines-its uses in business.
- 2.3 Networking and its uses – internet and intranet – internet Banking, Mobile-banking, e-statement.

- 2.4 Tally 9.1 (New version) – company creation – journal, daily report, profit and loss account and balance sheet preparation – VAT (Value Added Tax).
- 2.5 e-Commerce – impact of information technology – EDI (Electronic Data Interchange): order processing, invoicing.

**Unit – 3: Learning Strategies in Commerce Education (10 Hours)**

- 3.1 Learning strategies-oral-written-training-home work-independent study-interpretation of graphs.
- 3.2 Non-personal presentations-advertisement- press release and public relation materials-analysis of budgets and balance sheets-case studies.
- 3.3 Assignments - working out assignment - characteristics - types - purpose - guidelines for preparing assignments.
- 3.4 Approaches-journal approach-ledger approach-balance sheet approach-equation approach-spiral development approach-complete cycle approach-single entry approach.
- 3.5 Learner centred approach-characteristics-activity based approach-small group activity-large group activity.

**Unit – 4: Instructional Materials in Commerce Teaching (12 Hours)**

- 4.1 Instructional materials/teaching aids-meaning-importance-significance of teaching aids in Commerce & Accountancy.
- 4.2 Guiding principles for the effective use of teaching materials-types of teaching aids- selection of teaching aids.
- 4.3 Audio-visual aids-classification of audio-visual aids-the first approach-second modified approach-technological approach-Edger Dale's classification.
- 4.4 Audio and visual perception-projected aids-non-projected aids-activity aids.
- 4.5 Instructional materials/teaching aids employed in Commerce and Accountancy teaching-problems in the use of teaching aids.

**Unit – 5: Evaluation (14 Hours)**

- 5.1 Evaluation-concept-characteristics-need-importance-evaluation tools.
- 5.2 Criterion of an effective tool of evaluation-reliability-validity-types-factors influencing the reliability and validity-item analysis.

- 5.3 Construction of Achievement test – design, blueprint, marking scheme – question wise analysis.
- 5.4 Types of questions –objective type, short answers and essay type questions – criterion for a good test.
- 5.5 Administration of an achievement test – scoring and recording of test results.

### References

1. Aggarwal, J.C. (2005). *Educational technology and management*. Agra: Vinod Pustak Madir.
2. Chopra, H.K., & Sharma, H. (2007). *Teaching of commerce*. Ludhiana: Kalyani.
3. Dhand, H. (2009). *Techniques of teaching*. New Delhi: APH.
4. Mangal, S.K. (2001). *Foundations of educational technology*. Ludhiana: Tandon.
5. Muthumanickam, R. (2004). *Educational objectives for effective planning and teaching*. Tamilnadu: Cyber Lan.
6. Rao, Seema. (1995). *Teaching of commerce*. New Delhi: Anmol.
7. Rao, S. (2004). *Teaching of commerce*. New Delhi : Anmol.
8. Sharma, R.A. (2008). *Technological foundations of education*. Meerut: Lall.
9. Singh, Y.K. (2009). *Teaching of commerce*. New Delhi: APH.
10. Sivarajan, K., & Lal, E.K. (2002). *Commerce education - Methodology of teaching and pedagogic analysis*. Calicut: Calicut University.

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	2			2		2			
CO2	2	3			2				2	2
CO3	2	3			3			2		
CO4				3				2		
CO5	2	2		3						

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## B2 P2 12 – PEDAGOGY OF BIOLOGICAL SCIENCE – PAPER II

### Preamble

The aim of this course is to provide the foundation for teaching and planning, preparation of lesson plans, achieve competency in micro teaching skills and preparation of Teaching aids.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	implement the plan and prepare lesson plan effectively.
CO2	generate Computer Assisted Instruction in Classroom.
CO3	adopt and apply Various techniques of Teaching Biological Science.
CO4	recognize the importance of audio-visual aids to enhance the Teaching Biological Science.
CO5	apply the important concept of Biological Science at VIII Standard level.

### Unit – 1: Planning of Instruction

(12 Hours)

- 1.1 Lesson plan Definitions, Meaning, Need and Importance.
- 1.2 Writing Instructional Objectives.
- 1.3 Herbartian Lesson plan - Various types, Pros and cons.
- 1.4 Unit Plan: Definitions, Meaning, and importance.
- 1.5 Preparation - various steps - advantages and disadvantages.

### Unit – 2: Methods of Teaching

(12 Hours)

- 2.1 Teaching - Concept and Meaning.
- 2.2 Relation between approaches, Method and Technique of Teaching.
- 2.3 Teacher centered approaches - Lecture, types of lecture Demonstration, Team teaching, Historical Method - Merits and demerits
- 2.4 Pupil centered approaches - Laboratory method, Project method, assignment, Heuristic Method- Merits and demerits
- 2.5 Computer Assisted Instruction – Smart board and Mobile apps.

### Unit – 3: Techniques of Teaching of Bioscience

(12 Hours)

- 3.1 Seminar, Symposium, Study circle, Discussion.
- 3.2 Team Teaching and Brain storming.
- 3.3 Inducto - deductive approach – Meaning, Comparison of Examples, Pros and cons.

3.4 Scientific approach, Inquiry approach.

3.5 Activity approach, idealistic approach.

**Unit – 4: Instructional Aids in Biology (12 Hours)**

4.1 Audio – Visual aids – Needs and importance

4.2 Mnemonic aids – Activities aids – Uses

4.3 Real objects – Microscope, Skeletons, specimens of plant and animals

4.4 Representational aids – Charts, Pictures, Photographs diagrams, Models, display boards, Insect box, herbarium – Uses

4.5 Electronic aids – PPTs, Videos and Simulators.

**Unit – 5: Teaching of Content of Biology at Standard VII (12 Hours)**

5.1 Reproduction and Modification in Plants

5.2 Health and Hygiene

5.3 Cell Biology

5.4 Basis of Classification

5.5 Animals in Daily Life.

**References**

1. Aggarwal, D.D. (2002). *Modern methods of teaching of biology*. New Delhi: Karan.
2. Ameeta, P. (2009). *Methods of teaching of biological science*. New Delhi: Neelkamal.
3. Ameeta, P. (2010). *Technique of teaching of biological science*. New Delhi: Neelkamal.
4. Chauhan, S. S. (2018). *Innovations in teaching learning process*: New Delhi: Vikas.
5. Hemalatha Kalaimathi., & Asir Julius, R. (2016). *Teaching of biology*. New Delhi: Neelkamal.
6. Mangal, S.K. (2017). *Teaching of biological science*. New Delhi: Arya.
7. Nagarajan. K., Natarajan, S., & Manivasagan, C.R. (2009). *Educational Innovations and Management*. Chennai: Ram.
8. Raju, P.V.L. (2008). *Learning concept and cases*. Hyderabad: ICFAI University.
9. Sharma, R.C. (2010). *Modern teaching science*. New Delhi: Dhanpet Rai.
10. Sharma, R.C., & Shukla, C.S. (2002). *Modern science teaching*. New Delhi: Dhanpet Rai.
11. Textbook of Science, VII Standard. Chennai: Tamil Nadu Textbook and Educational Services Corporation. [www.textbooksonline.tn.nic.in](http://www.textbooksonline.tn.nic.in)

**Mapping of Course Outcomes (COs) with Programme Outcomes (POs)**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2	1		3	3	2			2	2
CO2	3	3		2	2				3	
CO3	3	2	1	3	3	1		2	3	2
CO4	2	2		3	2		1		2	1
CO5	3	2		3	3	1		1	2	1

**3 - High Correlation****2 - Moderate Correlation****1 - Low Correlation**



## **B2 P2 22 – PEDAGOGY OF COMMERCE AND ACCOUNTANCY- PAPER II**

### **Preamble**

To train the Commerce teachers to acquaint with knowing different sources of Commerce Education, methods and trends in Commerce and Accountancy.

### **Course Outcomes (COs)**

On the successful completion of the course, student-teachers will be able to

CO1	design lifelong education to learners according to their needs, aptitude and convenience.
CO2	apply the theories of motivation and provide rationale for the students in the classroom.
CO3	organize an effective classroom management system for a better climate.
CO4	identify different types of learning resources in Commerce education.
CO5	apply educational statistics in teaching Commerce and Accountancy.

### **Unit - 1 : Learning Process and Lifelong Learning (12 Hours)**

- 1.1 Concept of learning-nature and characteristics of learning-domains of learning.
- 1.2 Variables in learning-Individual variable-task variable-method variable
- 1.3 Lifelong learning- meaning- importance- current scenario
- 1.4 Approach- focus on lifelong learning- university specific programmes-developing lifelong learning as a discipline of study and field of practice.
- 1.5 Creation of centres of excellence- role and functions of departments of lifelong learning –UGC support to lifelong learning programmes.

### **Unit – 2 : Motivation Techniques in Commerce (12 Hours)**

- 2.1 Motivating – meaning and definition-importance of motivation.
- 2.2 Kinds of motivation- intrinsic and extrinsic motivation- Motivation techniques.
- 2.3 Rewards and punishment as motives in learning-Merits and demerits-praise and blame as motives in learning.
- 2.4 Hierarchy of motives- Maslow’s Hierarchy of needs- Application of Maslow’s theory in commerce classroom.

- 2.5 Achievement motivation- characteristics- achievement motivation and learning.

**Unit – 3 : Classroom Management in Commerce (12 Hours)**

- 3.1 Classroom management- concept-principles of classroom management.
- 3.2 Factors influencing classroom management- techniques of classroom management- time management.
- 3.3 System approach-input – process-output and feedback- aspects in commerce and accountancy teaching
- 3.4 Classroom climate- factors influencing or creating a better classroom climate- teacher role.
- 3.5 Educational management - management theories in educational administration.

**Unit – 4 : Resources Used in Commerce Education (12 Hours)**

- 4.1 Commerce department- plan for the department- factors to be considered for establishing a department.
- 4.2 Commerce laboratory- Creating-Furnishing and equipping.
- 4.3 Commerce library- print and on line resources- commerce journals, reports and other related items.
- 4.4 Commerce club- organization- office bearers.
- 4.5 Maintenance of registers and records – its importance and equipping the department- teachers diary- time table- principles of timetable.

**Unit – 5 : Interpretation and Recent Trends in Evaluation (12 Hours)**

- 5.1 Interpretation of test results-Educational Statistics – graphical representation of a score
- 5.2 Measures of central tendency – mean, median and mode-its classroom situation.
- 5.3 Measures of Dispersion and its uses in classroom situation – correlation - rank correlation.
- 5.4 Recent trends in evaluation- formative and summative evaluation.
- 5.5 Internal and External Examination- Diagnostic and Prognostic Test in Commerce.

## References

1. Agarwal, J.C. (2005). *Educational technology and management*. Agra, India: Vinod Pustak Madir.
2. Bhatia, K.K. (2001). *Foundations of teaching learning process*. Ludhiana, India: Tandon.
3. Boynton, L.O. (1995). *Methods of teaching book keeping*. Cincinnati: South Western.
4. Dhand, H. (2009). *Techniques of teaching*. New Delhi: APH.
5. Khan, M.S. (1982). *Commerce education*. New Delhi: Sterling.
6. Laxmi Devi. (1997). *Economics of education*. New Delhi: Bhargava.
7. Rao, S. (2004). *Teaching of commerce*. New Delhi: Anmol.
8. Satish Chandra. (2006). *Educational technology and measurement*. Meerut: R.Lall.
9. Sharma, R.A. (2005). *Teaching of commerce*. Meerut: Surya.
10. Siddiqui, M.H. (2009). *Techniques of teaching*. New Delhi: APH.
11. Singh, R.P. (2005). *Teaching of commerce*. Meerut: Surya.
12. Sivarajan, K., & Lal. E.K. (2002). *Commerce education- Methodology of teaching and pedagogic analysis*. Calicut: Calicut University.

## Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2					2			2	3
CO2				3	2		2			2
CO3	3	2		2	3	2	2		2	
CO4			2	2				2	2	
CO5	2	2		3		2			2	

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## B2 P2 32 - PEDAGOGY OF SPECIAL ENGLISH - PAPER II

### Preamble

To train the Prospective Teachers to master the relevant contents at Secondary level and help them develop into effective teachers at Secondary level.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	plan effective means and methods of achieving goals in teaching Intensive Reading namely Teaching of Prose and Teaching of Poetry.
CO2	achieve goals in teaching Supplementary Reading besides strengthening the Extensive Reading of the Trainee Teachers.
CO3	familiarize with the grammatical terminology and working knowledge in select grammatical units.
CO4	improve the writing ability of the student teachers in English and help them teach composition to advanced students of English Language.
CO5	master the Language Elements used in the X Standard English Course Book of Tamil Nadu Textbook and Educational Services Corporation.

### Unit – 1 : Intensive Reading (12 Hours)

- 1.1 Aims and Objectives of Teaching English at Higher Secondary Level
- 1.2 Intensive Reading
- 1.3 Teaching of Prose – Objectives – Steps and Procedures involved in Teaching of Prose at Higher Secondary level
- 1.4 Teaching of Poetry – Objectives – Steps and Procedures involved Teaching of Poetry at Higher Secondary level
- 1.5 Audio-visual Aids and Digital applications used in the English Classroom at Secondary level.

### Unit – 2 : Extensive Reading (12 Hours)

- 2.1 Problems in Reading comprehension
- 2.2 Steps and Procedures involved in Teaching of Supplementary Reading at Higher Secondary level
- 2.3 Problems in Reading comprehension
- 2.4 Library Resources used in Extensive Reading
- 2.5 Developing Reading using Apps in Smartphone, Digital Library, Blogs and E-readers.

### **Unit – 3 : Teaching of Grammar and Usage**

**(12 Hours)**

- 3.1 Labels of Grammatical analysis
- 3.2 Limitations of Indian learners in Learning Grammar
- 3.3 Types of Grammar – Descriptive and Prescriptive Grammar
- 3.4 Steps and Procedures involved in Teaching of Grammar
- 3.5 Methods of Teaching Grammar

### **Unit – 4 : Teaching of Writing - I**

**(12 Hours)**

- 4.1 Letter Writing
- 4.2 Paragraph Writing
- 4.3 Essay Writing
- 4.4 Teaching of Composition – Objectives – Types of Composition
- 4.5 Steps and Procedures involved in Teaching of Composition at Higher Secondary level

### **Unit – 5 : Analysis of Reader in English**

**(12 Hours)**

- 5.1 Language Components of the Content of X Standard English Reader of Textbook and Educational Services Corporation. [www.textbooksonline.tn.nic.in](http://www.textbooksonline.tn.nic.in)

### **References**

- 1. Baruah, T.L.(1992). *The english teacher's handbook*. New Delhi: Sterling.
- 2. Bright, J.A., & Mc Gregor, G. P. (1978). *Teaching english as a second language*. Singapore: Longman.
- 3. Geoffrey, L., & Stratbike, J. (1975). *A communicative grammar of english*. London: Cambridge University Press.
- 4. Gleninning, E. H., & Holstrom, B. (1992). *Study reading : A course in reading skills for academic purposes*. London: Cambridge University Press.
- 5. Kohli, A.L. (2003). *The techniques of teaching english in the new millennium*. New Delhi: Dhanpat Raj.
- 6. Mowla, S. (2004). *Techniques of teaching english*. Hyderabad: Neelkamal.
- 7. Randolph, Q., & Sydneybaum. (1973). *A university grammar of english*. London: Longman.
- 8. Robert, L. (1964). *Language teaching: A scientific approach*. New Delhi: Tata Mc Graw Hill.
- 9. Saraswathi, V. (2005). *English language teaching – Principles and practice*. Hyderabad: Orient Longman.

10. Sharma, R.A. (2005). *Fundamentals of teaching english*. Meerat : R. Lall Book Depot.
11. Sharma, R.N. (2008). *Contemporary teaching of english*. New Delhi : Surjeet.
12. State Council of Educational Research and Training (2019). *English Course Book, X Standard*, Chennai: Tamil Nadu Textbook and Educational Services Corporation.
13. Tiwari, S.R. (2006). *Teaching of english*. New Delhi: Ajay.
14. Widdowson. (1978). *Teaching english as communication*. London: Oxford University Press.
15. [www.britishcouncil.com](http://www.britishcouncil.com)
16. [www.textbookonline.tn.nic.in](http://www.textbookonline.tn.nic.in)

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	2		3	2		3			2
CO2	3	3		2	3					3
CO3	3	2		3	3					2
CO4	3	2		3	3		3			3
CO5	3		2	3		3			2	3

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## **B2 P2 42 - PEDAGOGY OF HISTORY - PAPER II**

### **Preamble**

The aim of this course is to enable student teachers to become good teaching professional in history by providing knowledge of curriculum development and optimal utilization of resources

### **Course Outcomes (COs)**

On the successful completion of the course, student-teachers will be able to

CO1	analyse the meaning and concept of curriculum development.
CO2	explore the ways and means of organisation of History curriculum.
CO3	compare the need for Correlation of History with other subjects.
CO4	acquire skills and competency to plan various resources and equipments in History.
CO5	realise the qualities of an effective History teacher.

### **Unit – 1: Curriculum Development (12 Hours)**

- 1.1 Meaning, Definition and Concept of Curriculum, Principles of Curriculum construction
- 1.2 History syllabus – on the basis of geographical boundaries – World History, National History, Regional and Local History
- 1.3 On the basis of Chronology – Ancient History, Medieval History and Modern History.
- 1.4 On the basis of Circumstances – Political History, Economic History and Social History.
- 1.5 Curriculum in Social Science – UNESCO Planning Mission, Indian Education Commission.

### **Unit – 2: Organization of History Curriculum (12 Hours)**

- 2.1 Theories Influencing Selection of Subject Matters – Cultural Epoch Theory, Biographical Approach, Psychological Theory
- 2.2 Chronological and Genealogical Plan
- 2.3 Concentric and Spiral Plan
- 2.4 Regressive and Progressive Plan
- 2.5 Unit Plan and Topical Plan.

**Unit – 3: Interdisciplinary Nature of History (12 Hours)**

- 3.1 Correlation – Meaning, Concept, Need and Importance
- 3.2 Views of Some Eminent Scholars on Correlation of History
- 3.3 Classification and Types of Correlation
- 3.4 Correlation with other subjects – Civics, Geography, Literature, Economics, Politics, Sociology, Science and Mathematics
- 3.5 Geographical Foundations of History.

**Unit – 4: Resources and Equipments (12 Hours)**

- 4.1 Instructional Resources – Textbook, Work book, Supplementary Reading Material, Audio Visual Aids
- 4.2 Historical Resources – Palace, Museum, Fort, Archives, Excavated Archaeological Sites
- 4.3 Community Resources – Guest Lectures, Community Survey, Mass Media
- 4.4 History Class Room – Need and Essential Equipments
- 4.5 History Library – Significance and Essential Equipments.

**Unit – 5: History Teacher (12 Hours)**

- 5.1 Qualities of a History teacher - personal and professional qualities.
- 5.2 Professional development of a teacher.
- 5.3 Fostering giftedness and creativity among the students.
- 5.4 Relationship with pupils, colleagues and community.
- 5.5 Classroom Interaction analysis – Modification of teacher behaviour with special reference to History teacher

**References**

- 1. Aggarwal, J.C. (2004). *Teaching of history*. New Delhi : Vikas.
- 2. Arulsamy, S. (2010). *Curriculum development*. Hyderabad: Neelkamal.
- 3. Bhati, A. (2012). *Curriculum technology and learning*. New Delhi: Anmol.
- 4. Biranchi Narayan Dash. (2002). *Teaching of history*. Hyderabad : Neelkamal.
- 5. Dutt, S. (1998). *Curriculum and child development*. India: Bhargava.
- 6. Erickson, L.H. (1998). *Concept-based curriculum and instruction*. India: Sage.
- 7. Kochhar, S.K. (2005). *Teaching of history*. New Delhi : Sterling.
- 8. Kohli, A.S. (1996). *Teaching of social studies*. India: Bhargava.
- 9. Lynton, R.P. (1998). *Social science in actual practice*. India: Sage.



10. Mrunalini, T. (2007). *Curriculum development*. Hyderabad: Neelkamal.
11. NCERT. (2005). *National curriculum framework 2005*. India: NCERT.
12. Promila, S. (2009). *Encyclopedia of curriculum development*. (Vol. 1). New Delhi: APH.
13. Promila, S. (2009). *Encyclopedia of curriculum development*. (Vol. 2). New Delhi: APH.
14. Sharma, S. (1998). *Textbooks and schools*. India: Bhargava.
15. Sivaraman, K., Thulasidaran, T.V., & Vijayan, N.K. (2016). *Social science education- Methodology of teaching and pedagogic analysis*. Calicut: Calicut University.
16. *Social Studies Curriculum Resource Handbook*. (1995). India: Sage.
17. Yadav, N. (1994). *Teaching of civics, and political science*. India: Bhargava.

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2		2	3		2	2			2
CO2	2	2	2	3	2	2	2	2	2	2
CO3	2	2	2	3		2			2	2
CO4	3	2		3				2	2	
CO5	2	2		3	2	3	2	2	2	

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## B2 P2 52 - PEDAGOGY OF MATHEMATICS - PAPER II

### Preamble

The aim of this course is to focus on teaching Mathematics effectively using mathematical resources.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	analyse different aspects of curriculum development in Mathematics.
CO2	organize Mathematics teaching learning resources through Math Lab, Math Club, Math Library and Math Expo to enhance Mathematics learning.
CO3	classify and propose various teaching learning activities and programmes focused at individual learners to develop Mathematics skill.
CO4	reflect the virtues and expertise of professional enrichment for Mathematics teachers on a global scale.
CO5	construct various types of tests and employ the adequate statistical tools to assess the learners.

### Unit - 1 : Curriculum Development in Mathematics (12 Hours)

- 1.1 Curriculum development in Mathematics - need and importance.
- 1.2 Types of Curriculum development and strategies to be employed.
- 1.3 The stages of curriculum development in Mathematics.
- 1.4 The Principles of Curriculum Construction in Mathematics.
- 1.5 Different approaches followed in curriculum development in Mathematics.

### Unit - 2 : Organisation of Mathematical learning resources (12 Hours)

- 2.1 Conducive classroom conditions for learning Mathematics - role of mathematics teacher in the classroom
- 2.2 Mathematics Laboratory - need, importance and functions
- 2.3 Mathematics Library - need, importance - organisation and maintenance of records, list of books
- 2.4 Mathematics club - formation and functions
- 2.5 Math - EXPO - Organisation, need and importance.

### Unit- 3 : Characteristics of Individual Learners (12 Hours)

- 3.1 Identifying individual differences - slow learners and gifted

- 3.2 Diagnosis and remediation of student difficulties in learning mathematics.
- 3.3 Enrichment programmes for the gifted to enhance learning mathematics.
- 3.4 Organising group work - dealing with homogeneous and heterogeneous groups
- 3.5 Talent Examinations - State, National, and International levels.

**Unit - 4 : Mathematics Teacher and Professional Enrichment (12 Hours)**

- 4.1 Mathematics teacher - academic and professional qualification - professional growth of a teacher.
- 4.2 Pre-service and in-service programme- need and importance of attending various training programmes - enrichment course and membership of professional association.
- 4.3 Duties and responsibilities of a mathematics teacher - social and environmental responsibilities - problems faced by mathematics teachers.
- 4.4 Preparation and the importance of Teacher's Diary, Time-table, maintenance of registers and records.
- 4.5 Special qualities required for mathematics teachers.

**Unit - 5: Evaluation (12 Hours)**

- 5.1 Construction of Achievement test - design, blueprint, marking scheme - question wise analysis.
- 5.2 Types of questions - short answers, objective type question - criterion for a good test.
- 5.3 Administration of an achievement test - scoring and recording of test results.
- 5.4 Diagnostic and Prognostic test - Remedial teaching in mathematics.
- 5.5 Educational Statistics - graphical representation of a score - measures of central tendency - mean, median and mode - Measures of Dispersion and its uses in classroom situation - correlation and rank correlation.

**References**

- 1. Aggarwal, J. C. (2008). *Teaching of mathematics*. UP, India: Vikas.
- 2. Bagyanathan, D. (2007). *Teaching of mathematics*. Chennai: Tamil Nadu Text Book Society.
- 3. Costello, J. (1991). *Teaching and learning of mathematics*. London: Routledge.
- 4. Ernest, P. (1989). *Mathematics teaching: The state of the art*. London: Falmer.
- 5. Goel, A. (2006). *Learn and teach mathematics*. New Delhi: Authors Press.

6. Kulshreshtha, A. K. (2008). *Teaching of mathematics*. Meerut: R.Lall.
7. Mangal, S. K., & Mangal, S. (2005). *Essentials of educational technology and management*. Meerut: Loyal.
8. Muthaiah, N., & Dharmarajan, T. (2010). *Romping of numbers*. Hyderabad: Neelkamal.
9. Muthaiah, N. (2004). *Magic square* (Tamil). Coimbatore, India: Extension department, Sri Ramakrishna Mission Vidyalaya College of Education.
10. Oosterhof, A.C.(1990). *Classroom applications of educational measurement*. Ohio: Merrill.
11. Pirie, S. (1987). *Mathematics investigations in your classroom*. London: Macmillan.
12. Pratap, N. (2008). *Teaching of mathematics*. Meerut: R.Lall.
13. Salvia, J., & Ysseldyke, J.E. (1985). *Assessment in special and remedial education*. Boston: Houghton Mifflin.
14. Schwartz, S. L. (2007). *Teaching young children mathematics*. London: Atlanti.
15. Sharan, R., & Sharma, M. (2006). *Teaching of mathematics*. New Delhi: A.P.M.
16. Sharma, R.A.(2008). *Technological foundation of education*. Meerut: R.Lall.
17. Siddizui, M. H. (2005). *Teaching of mathematics*. New Delhi: A.P.H.
18. Sidhu, K. S. (2006). *The teaching of mathematics*. New Delhi: Sterling.
19. Singh, M. (2006). *Modern teaching of mathematics*. New Delhi: Anmol.
20. Slavin, R.E. (1992). *Cooperative learning: Theory and Practice*. Boston: Allyn and Bacon.

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2		2	3		1			3	2
CO2	1	3		1	2	1				2
CO3	1	1			3	1	2		2	
CO4	3	2		1	2				2	1
CO5		2		2	2				3	1

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## B2 P2 62 - PEDAGOGY OF PHYSICAL SCIENCE - PAPER II

### Preamble

The aim of this of this course is to develop an understanding of Physical Science, Methods of Teaching, Evaluation, Curriculum Projects, Preparation of Teaching aids in Physical Science.

### Course Outcomes (COs)

On the successful completion of the courses, student-teachers will be able to

CO1	select suitable methods for teaching various topics in Physical Science.
CO2	explain the different types of test items used in Achievement test and Diagnostic test in Physical Science.
CO3	explain the steps and principles in curriculum development and approaches to curriculum organization.
CO4	describe the uses of various teaching aids in teaching different units of Physical Science.
CO5	analyse the role of Science reader and evaluate the Science content in VI to VII standard science text books of Tamil Nadu Textbook corporation.

### Unit - 1 : Methods of Teaching Physical Science (12 Hours)

- 1.1 Methods of Teaching Physical Science - introduction, definition, learning cycle.
- 1.2 Criteria for selection of methods, time and material factors.
- 1.3 Principles of effective learning - grouping of teaching methods
- 1.4 General Methods of teaching Physical Science, Lecture method, Lecture - cum - demonstration Method, Project Method, problem solving method, Heuristic method, Historical method, laboratory method, Individualized Instruction and Programmed Instruction(PI).
- 1.5 Activity Based Learning (ABL) - Active Learning Method (ALM), Advanced Active Learning Method (AALM) - its applications in Physical science

### Unit - 2 : Evaluation in Physical Science (12 Hours)

- 2.1 Introduction, concept of test - Measurement and Evaluation
- 2.2 Levels of Evaluation, Types of Evaluation and Evaluation Process.
- 2.3 Techniques and Devices of Evaluation in Physical Science.
- 2.4 Selection of the Appropriate Evaluation Technique.

- 2.5 Constructions and use of tests – Achievement and Diagnostic tests in Physical Science.

**Unit – 3 : Curriculum in Physical Science (12 Hours)**

- 3.1 Definition of curriculum- Principles of curriculum formation – science curriculum
- 3.2 Approaches to Curriculum formation- curriculum styles – various curricula projects
- 3.3 Curriculum in Physical Science – UNESCO Planning Mission, Indian Education Commission, Ishwar Bhai Patel Committee
- 3.4 Curriculum Improvement Projects -NPE, NCERT and PSSC (Physical Science Study Committee), Nuffield science teaching projects
- 3.5 Curriculum in science for different stages, Curriculum models

**Unit- 4 : Preparation of Teaching Aids in Physical Science (12 Hours)**

- 4.1 Meaning and Classification of Teaching Aids
- 4.2 Need for the Preparation of Teaching Aids
- 4.3 Preparation of Graphic Aids in Physical Science
- 4.4 Preparation of Models with Different Types of Materials (Clay and Paper-Made Models)
- 4.5 Selection of teaching aids - Handling aids for effective teaching.

**Unit – 5 : Content in Science Reader - VIII Standard (12 Hours)**

- 5.1 Heat: Effect of heat- Expansion - Rise in Temperature- change of state, Transfer of Heat, Conduction, Convection, Radiation, Temperature, Unit of heat, Heat capacity, Specific heat capacity, Calorimeter, Thermostat and Thermos flask.
- 5.2 Electricity: Atom, Charges, Transfer of charges, Flow of Charges, Electroscope, Lightning and Thunder, Electric circuits and Effect of Current.
- 5.3 Magnetism: Classification of Magnets, magnetic properties, Magnetic field, Magnetic materials, Earth's magnetism and use of magnets.
- 5.4 Acids and Bases: Acids- Bases – Neutralization Reaction- Indicators.
- 5.5 Hydrocarbons: Natural Gas- other Gases- Coal – Petroleum – Fuel – Alternative Fuel – Solar Energy.

**Practical:**

1. Preparing material for Activity Based Instruction.
2. Preparing a lesson plan using Power Point presentation.
3. Preparing a Physical Science album using internet.
4. Conducting a few experiments from the prescribed textbooks.

**References**

1. Alsop, S., & Hicks, K. (2007). *Teaching science: A handbook for primary and secondary school teachers*. New Delhi: Kogan Page.
2. Bennett, J. (2003). *Teaching and learning science: A guide to recent research and its applications*. London: Continuum.
3. Bhatnagar, A.D. (2004). *Teaching of science*. Meerut: Surya.
4. Carin, A., & Sund, B.R. (1964). *Teaching science through discovery*. Columbus Ohio: Charles E.Merrill.
5. Joshi, D.(2012). *Methodology of teaching science*. New Delhi: Dorling Kindersley.
6. Kerr, S.T. (1996). *Technology and the future of schooling*. Chicago, USA: National Society for the Study of Education.
7. Millar, R. (1984). *Doing science: Images of science in science education*. London: The Falmer.
8. National Council of Educational Research and Training. (2005). *National Curriculum Framework 2005*. New Delhi: NCERT.
9. Nair, C.P.S.(1971). *Teaching of science in our schools*. New Delhi: Sulthan Chand.
10. Newbury, N.F.(2006). *Teaching of chemistry in tropical secondary schools*. London: Oxford University Press.
11. Panner Selvam, A. (1976). *Teaching of physical science (Tamil)*. Government of Tamil Nadu.
12. Patton, M.Q. (1980). *Qualitative evaluation methods*. New Delhi, India: Sage.
13. Siddiqi. (1985). *Teaching of science today and tomorrow*. New Delhi: Doaba House.
14. UNESCO. (1979). *The UNESCO source book for science teaching*. Paris: UNESCO.
15. Vanaja,M. (2010). *Educational technology*. New Delhi: Neelkamal.

**Mapping of Course Outcomes (COs) with Programme Outcomes (POs)**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	1	2	3				1			
CO2			3	2		3				
CO3	1	2			2		3	3		
CO4		3		3					2	
CO5		2		1		3		2		3

**3 - High Correlation****2 - Moderate Correlation****1 - Low Correlation**

## B2 EPC 2 – DRAMA AND ART IN EDUCATION

### Preamble

The aim of this course is to understand the importance of Art, Music and Drama in education and enhance the skills in performing arts.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	analyse of the importance of Indian Music in their life.
CO2	develop mastery in performing arts of our cultural.
CO3	realise the significant relationship between drama and education.
CO4	explore the skills in drawing and painting to used creatively for social welfare and development.
CO5	create art equipments that facilitate art education.

### Unit – I Indian Music and Educational Implications (6 Hours)

- 1.1 An Introduction to Music - Sruti – Saptasvaras - Nadham -Thalam – Ragam
- 1.2 Musical Instruments: Oriental and Western - Sting instruments – Wind instruments – Percussion instruments – Modern Electronics instruments.
- 1.3 Indian Classical Music - Carnatic Music Genres - Hindustani Music Genres
- 1.4 Folk Music - Folk Music Genres: Lullaby, Sinthu, Kummy, Ballad (Songs during Cultivation and Harvest) and Boat Song.
- 1.5 Value Education from Vidyalaya Bhajan Songs : Teaching of Sri Ramakrishna Paramahansa, Holi Mother Sri Saratha Devi and Swami Vivekananda - Devotional and Patriotic songs.

### Unit – II Dance in Education (6 Hours)

- 2.1 An Introduction to the Art of Dance - History of Dance in India - Types of Dance
- 2.2 Bharathanatyam: – Music in Bharathanatyam - Dressing style - Bhavam (Expression) - Mudras in Bharathanatyam
- 2.3 Other forms of Classical Dance – Kathakali, Kathak and Kuchipudi
- 2.4 Traditional Dances of India - Bangra, Dhandiya Garbha and Baduga
- 2.5 Folk Dances of Tamil Nadu - Karakam, Kavadi, Oyil, Mayil and Poikal kuthirai.



**Unit - III Drama in Education (6 Hours)**

- 3.1 An Introduction to Drama – Use of Invisible theatre in classroom teaching & learning process - Enhancing Learning through Dramatics
- 3.2 Types of Drama: Melodrama, Tragedy, Comedy, History, Dramatic Romances and Modern drama in the form of Cinema and Serials
- 3.3 Histrionic Talents of Individual: Mono-acting, Mime, Role play
- 3.4 Talents and Cohesion: Skit, Dumb Charade and One-act play
- 3.5 Street Theatre: Koothu, Puppet Show and Harikatha - Role of a teacher in encouraging creative expression

**Unit - IV Drawing and Painting in Education (6 Hours)**

- 4.1 An Introduction to Drawing and Painting - Types of Colours - Symbolic uses of Colours.
- 4.2 Drawing - Pencil Drawing, Charcoal drawing, Poster Drawing, Stick Drawing, Cartoons and Caricatures.
- 4.3 Ajanta Cave Painting - History of Ajanta Cave Painting - Technology in Ajanta Painting.
- 4.4 Thanjavur Painting - History of Thanjavur Painting - Technology in Thanjavur Paintings
- 4.5 Variety Painting - Vegetable Print Art, Stick Art, Rangoli and Glass Painting

**Unit - V Creative Art (6 Hours)**

- 5.1 An Introduction to Creative Writing: Story writing and Poetry writing
- 5.2 Writing for Manuscripts, School and College Magazines.
- 5.3 Sound Recording - Sound Track Technologies and Sound Recording.
- 5.4 Video Making with Photos - Tools for Video Making suitable to School Children
- 5.5 Production of Artifacts - Artifacts of Music Instruments: Thampura, Harp, Nagaswaram and Harmonium.

**Practical:**

1. Preparation of Vocal practice (Devotional and Patriotic Songs)
2. Preparation and practice of Folk Dances of Tamil Nadu and others.
3. Preparation and practice of Drama on School subjects and Social Awareness.
4. Preparation and practice of drawing and painting on School subjects and Social Awareness.
5. Preparation of artifacts of wealth from waste

## References

1. Aniruddha Mukherjee. (2019). *Drama and Arts in Education*. Kolkata: Rita Book House.
2. Leela, S. V. (2013). *Bharathi Isai Iyal Payirchinnol - 2*. Chennai: The Karnatic Music Book Centre.
3. Munesh Kumar. (2016). *Drama and Art in Education*. Patna: Foundation Publishing House.
4. *Vidyalaya Bhajanai Padalgal*. (2018). Ramakrishna Mission Vidyalaya. Coimbatore.

## Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3					3	3			
CO2	3					2				
CO3	3		3		2					
CO4	3			1			3			
CO5	3				3				3	3

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## B2 EPC 3 : HEALTH, PHYSICAL EDUCATION AND YOGA

### Preamble

The aim of this course is to practice and enhance the knowledge on health, fitness and balanced diet through yogic practices.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	gain knowledge in the aspect of Health and Balanced Diet.
CO2	understand the various aspects of Physical Education and Adapted Physical Education.
CO3	enumerate the fitness components and explain the fitness assessment test.
CO4	understand the basic concepts of Yoga.
CO5	grasp the concepts of Asanas and Pranayama and Yogic diet.

### Unit - 1: Health Education and Nutrition

(6 Hours)

- 1.1 Definition of Health, Health Education, Health Supervision.
- 1.2 Aim, Objective and Principles of Health Education and School Health Services
- 1.3 Factors affecting Health, Health Supervision.
- 1.4 Personal and Environmental Hygiene in School.
- 1.5 Meaning of Balanced Diet, Components of food and their role (Macro-nutrients: Carbohydrates, Protein and Fat Micro-nutrients: Vitamins, Minerals).

### Unit - 2: Physical Education

(6 Hours)

- 2.1 Meaning, Definition and Scope of Physical Education
- 2.2 Aim and Objectives of Physical Education
- 2.3 Importance of Physical Education
- 2.4 Relationship between Physical Education and General Education.
- 2.5 Adapted Physical Education (Differently abled persons)

### Unit - 3: Physical Fitness

(6 Hours)

- 3.1 Definition of Physical Fitness, Components of Physical Fitness (Speed, Endurance, Agility, Strength, Coordination, Flexibility, Power, Balance, Reaction Time and Accuracy)
- 3.2 Need and Importance of Physical Fitness
- 3.3 Factors affecting Fitness (Age, Gender, Heredity, Habits, Environment, Stress, Sleeplessness)
- 3.4 Body Mass Index(BMI)- Calculation
- 3.5 Exercise to improve fitness – Value - added recreational games

**Unit – 4: Astanga Yoga and Pranayama****(6 Hours)**

- 4.1 Meaning and Definition of Yoga
- 4.2 Difference between the Physical Education and Yoga
- 4.3 Paths of Yoga (Karma Yoga, Raja Yoga, Jnana Yoga and Bhakti Yoga) – Swami Vivekananda
- 4.4 Astanga Yoga (Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana, Dhyana and Samadhi),
- 4.5 Define asana, types of Asanas and Benefits of Asanas

**Unit – 5: Pranayama & Yogic Diet****(6 Hours)**

- 5.1 Pranayama: Definition and types of Pranayama (Surya Bhedana, Chandra Bhedana, Nadi Sudhi, Nadi Shodana, Bhastrika, Kapalapathi, Seetali, Setkari, Bharamari, Ujjai)
- 5.2 Swami Vivekananda: Pranayama Benefits of Pranayama.
- 5.3 Shart Kriyas (Neti, Dhouthi, Basti, Kapalapathi, Nauli and Trataka)
- 5.4 Yogic Diet (Sattvic, Tamasic and Rajasic)
- 5.5 Meditation- Benefits of Pranayama.

**References**

1. Baljit Singh. (2009). *Principles of Physical Education*. New Delhi: Sports Publication.
2. Bucher, C.A. *Foundation of Physical Education*. Saint Louis: The C.V. Mosby Company.
3. Frank, H. & Walter, H., (1976). *Turners School Health Education*. Saint Louis: The C.V. Mosby Company.
4. Iyengar, B.K.S. (2000). *Lights on Yoga*. New Delhi: Harper Collins Publishers.
5. Moorthy A.M & Alagesan. S (2004). *Yoga Therapy*. Coimbatore: Teachers Publication House.
6. Srimath Swami Asuthoshananda (10th Edition -2017). *Srimath Bhagavad Gita*. Chennai (Mylapur): Sri Ramakrishna Math Press.
7. Srimath Swami Chidbhavananda (26th Impression -2015). *Srimath Bhagavad Gita*. Trichy (Tirupparaitturai): Sri Ramakrishna Tapovanam.
8. Swami Vivekananda (4th Edition-2018). *Patanjali Yoga Sutras*. Chennai (Mylapur): Sri Ramakrishna Math Press.

**Mapping of Course Outcomes (COs) with Programme Outcomes (POs)**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1				3			3			
CO2				3		2				
CO3							3		3	
CO4							3	3		
CO5							3	3		

**3 - High Correlation****2 - Moderate Correlation****1 - Low Correlation**

## **SEMESTER III**

<b>Group B : Curriculum and Pedagogical Studies</b>	
<b>Pedagogy 1</b>	
B3 P1 13	Pedagogy of English – Paper III
B3 P1 23	Pedagogy of Computer Science – Paper III
B3 P1 33	Principles of Commerce and Accountancy Education – Paper III
<b>Pedagogy 2</b>	
B3 P2 13	Pedagogy of Biological Science – Paper III
B3 P2 23	Pedagogy of Commerce and Accountancy – Paper III
B3 P2 33	Pedagogy of Special English – Paper III
B3 P2 43	Pedagogy of History – Paper III
B3 P2 53	Pedagogy of Mathematics – Paper III
B3 P2 63	Pedagogy of Physical Science – Paper III

## B3 P1 13 - PEDAGOGY OF ENGLISH - PAPER III

### Preamble

The aim of this course is to develop an in-depth understanding and application of different methods, approaches in teaching learning process, and to utilize the resources available in English Language learning.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	explore and experience various traditional and digital resources available in English language learning and utilize them effectively.
CO2	review and use appropriately different methods in teaching of English language.
CO3	compare and employ different approaches in teaching of English language.
CO4	recognise and apply various assessment and evaluation techniques in teaching of English language at secondary school level.
CO5	get mastery in language elements used in the VII Standard English course book and employ their knowledge in classroom interaction.

### Unit – 1 : Resources in Teaching English (12 Hours)

- 1.1 Principles involved in the selection of Language materials
- 1.2 English Course Book
- 1.3 Work books and Question banks
- 1.4 Reference Materials used in Language Teaching
- 1.5 Standardized Resource Materials – BBC and VOA Cassettes and Handouts

### Unit – 2 : Methods of Teaching English Language (12 Hours)

- 2.1 Methods, Approaches and Techniques in Teaching English
- 2.2 Grammar-translation Method – Principles - Merits and Demerits of the Method
- 2.3 Direct Method – Principles - Merits and Demerits of the Method
- 2.4 Bilingual Method – Principles - Merits and Demerits of the Method
- 2.5 Dr. West's New Method – Principles - Merits and Demerits of the Method

### Unit – 3 : Approaches in Teaching English at Secondary Level (12 Hours)

- 3.1 The Structural Approach – Principles – Types of Structure

- 3.2 Criteria for the selection of Structures
- 3.3 The Situational Approach - Principles – Types of Situations
- 3.4 Teaching of Language Elements using Situations
- 3.5 The Communicative Approach – Principles – Activities employed in Communicative Approach

**Unit – 4 : Assessment and Evaluation at School (12 Hours)**

- 4.1 Continuous and Comprehensive Evaluation
- 4.2 Book back Exercises
- 4.3 Activities and Projects in English
- 4.4 Oral tests – Internal Assessment
- 4.5 Feedback and Backwash effect – Remedial Measures

**Unit – 5 : Analysis of Reader in English (12 Hours)**

- 5.1 Elements of Language from the Content of the VII Standard English Reader of Tamil Nadu Textbook and Educational Services Corporation. [www.textbooksonline.tn.nic.in](http://www.textbooksonline.tn.nic.in)

**References**

1. Allen, H.B., & Campbell, R.N. (1972). *Teaching english as a second language*. New Delhi: Tata Mc Graw Hill.
2. Bright, J.A., & Mc Gregor, G. P. (1978). *Teaching english as a second language*. Singapore: Longman.
3. Carroll.V (1997). *Interactive approach to second language reading*. London: Cambridge University Press.
4. Geetha, N. (2000). *English language teaching: Approaches, methods and techniques*. Calcutta: Orient Longman.
5. Harmer, J. (1990). *The practice of english language teaching*. Hong Kong: Longman.
6. Hubbard, P. (1983). *A training course for TEFL*. London: Oxford University Press.
7. Kohli, A.L. (2003). *The techniques of teaching english in the new millennium*. New Delhi: Dhanpat Raj.
8. Krishnasamy, N., & Raman, T. (1994). *English teaching in India*. Madras: T.R.P.
9. Mowla, S. (2004). *Techniques of teaching english*. Hyderabad : Neelkamal.
10. O'Malley., & Chamot. (1997). *Learning Strategies & Second Language Acquisition*. London: Cambridge University Press.
11. Prabhu, N.S. (1997). *Second Language Pedagogy*. New Delhi: Oxford University Press.

12. Richarson., & Roachards. (1997). *Approaches and methods in language*. London: Cambridge University Press.
13. Robert, L. (1964). *Language teaching: A scientific approach*. New Delhi: Tata Mc Graw Hill.
14. Saraswathi, V. (2005). *English language teaching – Principles and practice*. Hyderabad: Orient Longman.
15. Sharma, R.N. (2008). *Contemporary teaching of english*. New Delhi : Surjeet.
16. State Council of Educational Research and Training. (2019). *English Course Book, VII Standard*. Chennai : Tamil Nadu Textbook and Educational Services Corporation. [www. textbooksonline.tn.nic.in](http://www.textbooksonline.tn.nic.in).
17. Tickoo, M.L. (2003). *Teaching and learning english*. New Delhi: Orient Longman.
18. Tiwari, S.R. (2006). *Teaching of english*. New Delhi : Ajay.
19. Thompson, M.S.H. (2003). *Teaching of english*. New Delhi : DPH.
20. Venkateswaran. P. (1997). *Principles of teaching english*. Bangalore: Vikas.

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	3		3	2	2			3	2
CO2	3	2	2	3	2		2		2	2
CO3		2	2							
CO4	2	2	3	3	3					
CO5	3			3	2		2		3	3

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**



**B3 P1 23 - PEDAGOGY OF COMPUTER SCIENCE: PAPER III****Preamble**

The aim of this course is to develop an in-depth understanding of curriculum construction, methods of teaching computer science, application computer networking and enhance practical skills.

**Course Outcomes (COs)**

On the successful completion of the course, student-teachers will be able to

CO1	familiarize the concept and construction of curriculum.
CO2	interpret with the different methods in imparting computer science concepts.
CO3	experiment the fundamentals of 'C++' and develop simple programs in C++.
CO4	plan and manage computer laboratory.
CO5	practice practical training in programme entry, editing and debugging.

**Unit – 1: Curriculum in Computer Science (12 Hours)**

- 1.1 Curriculum – Meaning, Principles and Need
- 1.2 Construction of Curriculum for Computer Science – Importance and Steps
- 1.3 Evaluation of State Board Higher Secondary Computer Science Syllabus of Tamil Nadu
- 1.4 Place of Computer concepts in Primary, Secondary and Higher Secondary level
- 1.5 Computer Science and its Correlation with other school subjects

**Unit – 2: Methods of Teaching and Learning Computer Science (12 Hours)**

- 2.1 Methods of Teaching – Introduction, Need and Available methods
- 2.2 Large Group Methods – Lecture, Seminar, Symposium -Importance
- 2.3 Small group Methods–Discussion, Debate, Demonstration-Concept, Importance
- 2.4 Experiential Learning – Field Experience, Experiments, Field Trip, Visit - Advantages
- 2.5 Individualized Instruction – Meaning, Need, Types and Principles

**Unit – 3: Fundamentals of “C++” Language (12 Hours)**

- 3.1 Introduction to “C++” Language

- 3.2 Basic Elements of “C++” Language – Constants, Identifiers, Operators and Keywords
- 3.3 Statements – Kinds and Syntax
- 3.4 Simple Programme Development
- 3.5 Validation of Programme and Documentation

**Unit – 4: Courseware and its Significance in Teaching and Learning (12 Hours)**

- 4.1 Courseware – Concept, Importance in teaching and Learning
- 4.2 Courseware through electronic media and non-electronic media
- 4.3 Courseware Preparation – Principles and Steps
- 4.4 Preparation of Courseware through electronic media – CAI Preparation
- 4.5 Validation and Evaluation of Courseware

**Unit – 5 : Computer Networking and its Applications (12 Hours)**

- 5.1 Networking – Meaning, importance and Types
- 5.2 Role of Networking in teaching and learning - Advantages and Limitations
- 5.3 Tele-Teaching and Tele-Conferencing – Meaning, Importance and Uses in Education
- 5.4 Introduction to Global Positioning System (GPS) and its advantages
- 5.5 Computer Ethics – Data Security – Computer Crime application

**Practical:**

- 1. Study the syllabus prescribed for higher secondary classes
- 2. Simple programme development in ‘C++’
- 3. Preparation of CAI material for teaching

**References**

- 1. Aggarwal, J.C. (2009). *Principles, methods and techniques of teaching*. New Delhi: Vikas.
- 2. Balagurusamy, E. (2006). *Objective-oriented programming with c++*. New Delhi: Tata McGraw-Hill.
- 3. Craig Zacker. (2001). *Networking: The complete reference*. New Delhi: Tata McGraw-Hill.
- 4. Doug Fodeman., & Marje Monroe. (2013). *Safe practices for life online*. Washington DC: International Society for Technology in Education.
- 5. Erickson, H.L. (1998). *Concept based curriculum and instruction*. New Delhi: Sage.
- 6. Hubbard, J.R. (2002). *Programming with C++*. New Delhi: Tata McGraw-Hill.

7. Khan, M.S. (2004). *School curriculum*. New Delhi: Ashish.
8. Kochhar, S.K. (2001). *Methods and techniques of teaching*. New Delhi: Sterling.
9. Krishnamacharyulu, V. (2008). *Classroom dynamics*. Hyderabad: Neelkamal.
10. Maddison, J. (1983). *Education in the micro electronics era*. The Open University Press.
11. Naidu, R.V. (2006). *Teacher's behaviour and students' learning*. Hyderabad: Neelkamal.
12. Nayak, A.K., & Rao, V.K. (2004). *Classroom teaching*. New Delhi: APH.
13. Pandey, S.K. & Sharma, R. S. (2004). *Encyclopedia of modern techniques of teaching*. New Delhi: Commonwealth.
14. Panneer Selvam, S.K. (2010). *Teaching strategies*. New Delhi: APH.
15. Rajasekar, S., & Seenivasan, P. (2015). *Methods of teaching computer science*. Hyderabad: Neelkamal.
16. Ram, S. (2008). *Modern teaching methods*. New Delhi: Karan.
17. Rao, V.K. (1999). *Hand book of modern methods of teaching*. New Delhi: Rajat.
18. Rao, V.K. (2005). *Principles of curriculum*. New Delhi: APH.
19. Ravichandran, D. (2001). *Programming with C++*. New Delhi: Tata McGraw Hill.
20. Singh, A. (2005). *Strategies for better teaching*. New Delhi: Arise .
21. Singh, Y.K. (2005). *Teaching of computer science*. New Delhi: APH.
22. Venugopal, K.R. (2005). *Mastering C++*. New Delhi: Tata McGraw-Hill.
23. Viswanathappa, G., & Jangaiah, C. (2006). *Techniques and strategies of teaching at secondary level*. Hyderabad: Neelkamal.
24. Zais, R.S. (1976). *Curriculum: Principles and foundations*. New Delhi: Thomas Y. Crowell.

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	2		3	1	3				
CO2	3	2		3	1					
CO3	1	2		3					3	2
CO4		2		3	1				2	3
CO5	2	3		3					3	2

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## B3 P1 33 - PRINCIPLES OF COMMERCE AND ACCOUNTANCY EDUCATION - PAPER III

### Preamble

The aim of this course is to develop an understanding of international trade in business, application in different forms of organizations, and familiarize with the social framework of consumer rights and legal framework of protecting consumer rights.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	describe the various types of trade and international trade in business.
CO2	apply the aids to trade; transport, warehousing, banking and its applications in Commerce.
CO3	analyse the concept of insurance and advertising, and how it affects the business.
CO4	explain the various types of business and their application into different forms of organizations.
CO5	familiarize the social framework of consumer rights and legal framework of protecting consumer rights.

### Unit – 1: Economic Activity, Trade and Commerce (12 Hours)

- 1.1 Barter system - economic activity - business activity - trade - commerce - meaning - branches of commerce.
- 1.2 Internal trade - small scale organisations - types - home trade - street stall - second hand goods dealers - speciality shops - wholesale and retail trade.
- 1.3 Internal trade - large scale retail organisations - types - departmental stores - multiple shops - co-operative stores - hire purchase and instalment system - mail order business - web marketing - e-commerce - teleshopping.
- 1.4 International trade - meaning - need - types - intermediaries in import and export trade - balance of payment - IMF - World Bank - EXIM bank - IDA - ADB - GATT - globalisation - multinational companies - foreign trade policy 2009-14.
- 1.5 Financial market - primary and secondary market - stock exchange - meaning - functions - limitations - investor and speculators - kinds - SEBI - objectives - functions - mutual funds - Bombay On Line Trading(BOLT).

**Unit – 2: Aids to Trade – Transport, Warehousing, Banking (12 Hours)**

- 2.1 Transport: meaning - importance - functions - types - public and private carrier - containerization - documents used in transport - bill of lading-way bills.
- 2.2 Warehousing: meaning - need - functions - kinds - private - public - co-operative - bonded - advantages and limitations.
- 2.3 Warehousing documents: warehouse warrant - dock warrant - receipt - delivery order - warehouse keepers receipt - warehousing in India and in Tamil Nadu.
- 2.4 Banking: need - kinds of banks - commercial banks - central bank - functions of commercial bank - cheque - MICR cheques - crossing - kinds - endorsement - dishonour of cheque - ATM card - credit card.
- 2.5 Reserve Bank of India: functions - quantitative and qualitative credit control - rural banking - co-operative banks - ombudsman scheme - development banking - indigenous bankers - State Financial Corporations - e-banking- internet banking and EFT (Electronic Fund Transfer).

**Unit – 3 : Aids to Trade-Insurance, Advertising (12 Hours)**

- 3.1 Insurance: concept of risk - types - sources and measurement of risk - risk evaluation and prediction - disaster risk management - risk retention and transfer.
- 3.2 Nature of insurance contract: principles - types of insurance - life insurance - kinds - surrender value and nomination - fire and motor insurance - marine insurance - health insurance - burglary insurance - automobile insurance.
- 3.3 Legal aspect of insurance contract - control of malpractices - loss assessment and loss control - IRDA - role, power and functions - privatisation of insurance - globalization - reinsurance - co-insurance.
- 3.4 Advertising: meaning - objectives - kinds of advertising - benefits - media selection - scheduling - direct and indirect media - promotional advertising - advertising through internet.
- 3.5 Advertisement copy - audience selection - advertising creativity - legal aspects of advertising in India - recent developments and issues.

**Unit – 4 : Types of Business Organisations (14 Hours)**

- 4.1 Organisation: meaning - types of organisations - sole trader - special features - business philosophy and behavioural orientations - role and functions - one man control.

- 4.2 Partnership: meaning - nature - types - kinds of partners - rights - duties - liabilities of partners - partners express and implied authority - partnership deed - registration - dissolution.
- 4.3 Companies - meaning - features - kinds of companies - formation of a company - Memorandum of Association - Articles of Association - Prospectus - shares - types - allotment of shares - debentures - kinds of debentures.
- 4.4 Hindu undivided family - features - co-operatives - special features - types of co-operatives - Government companies - types - departmental undertaking - public corporations - private sector - multinational companies.
- 4.5 Company management - meaning - appointment of directors - qualifications - powers - liabilities - managing director - company secretary - functions - meeting - kinds - proxy - quorum - agenda - resolution - voting minutes.

**Unit – 5: Consumerism and Consumer Protection (10 Hours)**

- 5.1 Concept of consumers - concept of price in retail and whole sale - MRP and local taxes - fair price - unfair trade practices - restrictive trade practices.
- 5.2 Salesmanship - meaning - importance - consumerism - consumer exploitation misleading advertisements - deceptive advertising.
- 5.3 Experiencing dissatisfaction - complaining behaviour - procedure - Corporate Redress System - Conciliation and Intermediation for out-of-court redressal.
- 5.4 Consumer Protection Council - national - state and district level - basic consumer rights - adjudicatory bodies - district forum - role of Government in protecting the interest of consumer.
- 5.5 Quality and standardization - national standards - licensing and surveillance - international standards (ISO) certification - recent developments in consumer protection in India.

**References**

- 1. Aggarwal, V. K. (2003). *Consumer protection: Law and practice*. New Delhi: Bharat Law House.
- 2. Bhattia., & Bhattia. (2006). *Principles and methods of teaching*. New Delhi: Dobba House.
- 3. Douglas, P., & Anderson. (2000). *Teaching business subjects*. New York: Prentice Hall.
- 4. Drucker, P. F.( 1972). *Practice of management*. London: Mercury Books.
- 5. Griffin, Ricky W., & Michael, W. Pustay. (2006). *International business - A managerial perspective*. London: Prentice Hall.
- 6. Khan, M.S. (1982). *Commerce education*. New Delhi: Sterling.
- 7. Kumar, A., & Meenakshi, N. (2011). *Marketing management*. New Delhi: Vikas.

8. Mishra, M. N.(1979). *Principles and practices of insurance*. S. Chand and Sons.
9. Raiyani, J.R. & Lodha, G. (2012). *International financial reporting standard (IFRS)and Indian Accounting Practices*. New Delhi: Century.
10. Rangarajan, C., & Jadhav, N. (1992). *Issues in financial sector reform*. Bimal Jalan. (5th ed). The Indian Economy. New Delhi: Oxford University Press.

**Mapping of Course Outcomes (COs) with Programme Outcomes (POs)**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1			2	3		2				2
CO2		2		3	2	2	2		2	
CO3				3		2			2	2
CO4	2			3	2			2		2
CO5	2		2	3		2			2	2

**3 - High Correlation****2 - Moderate Correlation****1 - Low Correlation**

## B3 P2 13 - PEDAGOGY OF BIOLOGICAL SCIENCE – PAPER III

### Preamble

The aim of this course is to provide the practical knowledge about the maintenance and usage of science laboratory and giving various aspects and methods of evaluation.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	develop the concepts of crop production, bio-diversity and pollution.
CO2	classify the structure of animal kingdom and organ systems of human being.
CO3	attribute the importance of evolution and functions of life process.
CO4	organize the different components of living world and physiology of living organisms.
CO5	generate the importance of Environmental Science and Bio-technology.

### Unit – 1: Teaching of content of Biology at Standard VIII Level (12 Hours)

- 1.1 Crop protection and Management.
- 1.2 Reaching of Age of adolescence – Body Movements.
- 1.3 Pictorial features of plant kingdom – Micro organisms Diversity in Living organism.
- 1.4 Conservation of plant and animals.
- 1.5 Pollution of Air, Water and soil.

### Unit – 2: Teaching of content of Biology at Standard IX Level (12 Hours)

- 2.1 Improvement of food resources – Addiction and health life style
- 2.2 Human Body – organ System
- 2.3 Structural and Physical Functions of plants – Animals Kingdom
- 2.4 Cell and tissues.
- 2.5 Bio – Geochemical cycle – Pollution and ozone depletion

### Unit – 3: Teaching of content of Biology at Standard X Level (12 Hours)

- 3.1 Heredity and Evolution.
- 3.2 Immune system – Structure and Functions of the Human body – organ system
- 3.3 Reproduction in plants.
- 3.4 A Refreshment of type study of mammals – life Process
- 3.5 Conservation of Environment – Waste Water Management

### Unit – 4: Teaching of content of Biology at Standard XI Level (12 Hours)

- 4.1 Diversity of living world – plant kingdom and animal kingdom.



- 4.2 Plant morphology and taxonomy of angiosperm – organ system in animals.
- 4.3 Cell Biology and biomolecules – respiration and circulation.
- 4.4 Plant anatomy – Plant Physiology
- 4.5 Locomotion, movements – trends in economic Zoology.

### **Unit – 5: Teaching of Content of Biology at Standard XII Level (12 Hours)**

- 5.1 Human Physiology – Microbiology – Immunology
- 5.2 Environmental science – applied Biology – Theories of Evolution
- 5.3 Taxonomy of Angiosperms
- 5.4 Plant anatomy – cell biology and genetics
- 5.5 Bio-technology – Plant Physiology – Biology in Human welfare

### **References**

1. State Council of Educational Research and Training. (2019). *Textbook of Science*, VIII Standard. Chennai: Tamil Nadu Textbook and Educational Services Corporation. [www.textbooksonline.tn.nic.in](http://www.textbooksonline.tn.nic.in).
2. State Council of Educational Research and Training. (2019). *Textbook of Science*, VIII Standard. Chennai: Tamil Nadu Textbook and Educational Services Corporation. [www.textbooksonline.tn.nic.in](http://www.textbooksonline.tn.nic.in).
3. State Council of Educational Research and Training. (2019). *Textbook of Science*, VIII Standard. Chennai: Tamil Nadu Textbook and Educational Services Corporation. [www.textbooksonline.tn.nic.in](http://www.textbooksonline.tn.nic.in).
4. State Council of Educational Research and Training. (2019). *Textbook of Biology – Botany & Zoology* first and second year. Chennai: Tamil Nadu Textbook and Educational Services Corporation. [www.textbooksonline.tn.nic.in](http://www.textbooksonline.tn.nic.in).
5. State Council of Educational Research and Training. (2019). *Textbook of Science*, XI Standard, Chennai: Tamil Nadu Textbook and Educational Services Corporation. [www.textbooksonline.tn.nic.in](http://www.textbooksonline.tn.nic.in).

### **Mapping of Course Outcomes (COs) with Programme Outcomes (POs)**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2	3		2				1	1	
CO2	1	2	2	3					2	1
CO3	1	2		3				1	2	1
CO4	3	2		2	2				2	1
CO5	2	2			3		1	1	3	2

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## B3 P2 23 - PEDAGOGY OF COMMERCE AND ACCOUNTANCY- PAPER III

### Preamble

The aim of this course is to develop the understanding of accounting and application of different accounting, understand about partnership and company accounts and computerised accounting.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	classify the branches of accounting and its concepts.
CO2	practice the maintenance of ledger and trial balance.
CO3	design the final accounts and financial statement analysis reports.
CO4	prepare partnership and company accounts in Commerce and Accountancy.
CO5	design computerized accounting and prepare different types of ledgers.

### Unit – 1: Accountancy - Introduction and Basic Concepts (12 Hours)

- 1.1 Introduction to Accounting-Book – Keeping- Meaning of Accounting-Relationship between Accountancy, Accounting and Book – Keeping.-Accounting Cycle- Distinction between Book – Keeping and Accounting
- 1.2 Users for Accounting information, their need and advantages of Accounting-Branches of Accounting-Basic Accounting Terms
- 1.3 Classification of Accounts- Golden Rules of Accounting-Accounting Principles and Accounting Standards
- 1.4 General Accepted Accounting Principles – Assumption – Concepts – Principles – Accounting Standards at International Level- In India-
- 1.5 Accounting Standards issued so far- Compliance with Accounting Standard.

### Unit – 2: Books of Original Entry and Trial Balance (12 Hours)

- 2.1 Journal - Introduction - Double Entry System - Source Documents - Books of Original Entry
- 2.2 Ledger - Meaning - Posting - Balancing the Account - Difference between Journal and Ledger
- 2.3 Recording of Non cash Transactions-Special purpose books-Cash Book-Types of Cash Book-petty cash book

- 2.4 Trial Balance-Meaning-Definition-Uses-Limitations-Errors and their Rectification- Meaning-Types-Errors disclosed by Trial Balance-Errors not disclosed by Trial Balance-Suspense Account
- 2.5 Bank Reconciliation Statement-Meaning-Need- Distinction between Cash Book and Pass Book-Procedure for preparing Bank Reconciliation Statement

**Unit – 3 : Final Accounts, Accounts from Incomplete Records (12 Hours)**

- 3.1 Final Accounts-Introduction-Trading Account- Format of Trading Account- Profit & Loss Account- Balance Sheet- Distinction between Trial Balance and Balance Sheet
- 3.2 Final Accounts - Adjustments- Closing Stock- Outstanding Expenses- Prepaid Expenses- Accrued Incomes-Incomes received in Advance-Interest on Capital- Interest on Drawings-Interest on Loan- Interest on Investment- Depreciation- Bad Debts-Provision for Bad and Doubtful Debts-Provision for Discount on Debtors- Provision for Discount on Creditors
- 3.3 Depreciation-Meaning-Need-Causes of Depreciation- Methods of Depreciation- Straight Line method-Written Down Value method
- 3.4 Accounts from Incomplete Records (Single Entry)- Meaning, Definition- Features- Limitations of Single Entry- Methods of ascertaining Profit or Loss-Statement of Affairs Method-Conversion Method
- 3.5 Financial Statement Analysis - -Significance of Financial Statement Analysis - Limitation Ratio Analysis -Objectives - Classification of Ratios - Liquidity Ratios - Solvency Ratios - Profitability Ratio-Activity Ratios

**Unit – 4 : Partnership and Company Accounts (12 Hours)**

- 4.1 Accounting for Partnership Firm- Fundamentals-Meaning- Definition- Features- Partner's Capital Account- Fixed Capital-Fluctuating Capital- Methods of Valuation of Goodwill-Factors affecting the value of Goodwill
- 4.2 Reconstitution of a firm-Admission-Calculation of New ratio and sacrificing Ratio- Revaluation of Assets and Liabilities-Recording the Capital of a new Partner - Retirement and death-Calculation of new ratio and gaining ratio - Settlement of the retiring Partner's Claim
- 4.3 Dissolution of a firm-situation in which dissolution of a firm.
- 4.4 Company Accounts-Introduction - Characteristics - Types of Share Capital - Kinds of Shares-Debentures-types of debentures.
- 4.5 Issue of Shares- Forfeiture of Shares-Re-issue of forfeited Shares-Disclosure of Share Capital in Company Balance Sheet- Latest Techniques for issue of Shares

**Unit – 5 : Computerised Accounting – Basic Concepts (12 Hours)**

- 5.1 Computer-Introduction-Components of Computer-Advantages of Computer - Importance and Capabilities of Computer
- 5.2 Computerised Accounting- Meaning- Significance of Computerised Accounting- advantages and limitations
- 5.3 Creating a company-configure and features settings –creating accounting ledgers and groups-creating stock items and groups –voucher entry.
- 5.4 Groups-Ledger-Creating a Ledger- Display of individual Ledger- Alternation of Group Account- Creating Multiple Ledger
- 5.5 Reports-Alter Report-Display of Trading, Profit and Loss and Balance-cash book- ledger accounts-fund flow statement-cash flow statement.

**References**

1. Ahmed, N., Khan, N.A., & Gupta, M.L. (2008). *Fundamentals of financial accounting*. New Delhi: Ane Books.
2. Jain., & Narang. (2004). *Financial accounting*. New Delhi: Kalyan.
3. Maheshwari, S.N., Maheshwari, S.K., & Maheshwari, S.K. (2012). *A text book of accounting for management*. New Delhi: Vikas.
4. Radhaswamy., & Gupta, R.L. (1990). *Advanced accounting*. New Delhi: Sultan Chand & Sons.
5. Raiyani, J. R., & Lodha, G. (2012). *International financial reporting standard (IFRS) and Indian accounting practices*. New Delhi: New Century..
6. Romney, M. B., & Steinbart, P. J. (2014). *Accounting information systems* (13th ed.). London: Prentice Hall.
7. Sehgal, A., & Sehgal, D. (2008). *Advanced accounting*, Vol I. Taxmann Allied Services.
8. Shukla, M.C., T.S. Grewal., & S.C.Gupta. (2010). *Advanced accounts- Volume 1*. New Delhi: S.Chand.
9. Shukla, M.C., T.S. Grewal., & S.C.Gupta. (2010). *Advanced accounts- Volume 2*. New Delhi: S.Chand & Co.
10. Tulasian, P.C. (2002). *Introduction to accounting*. New Delhi: Pearson Education.
11. Vohra, N.D., & B.R. Bagri. (2003). *Futures and options* (2nd ed.). Tata McGraw Hill.

**Mapping of Course Outcomes (COs) with Programme Outcomes (POs)**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1				3					2	2
CO2	2	2		3	2	2			2	2
CO3	2	2		3			2		2	
CO4		2		3		2	2		2	1
CO5		3		3					2	

**3 - High Correlation****2 - Moderate Correlation****1 - Low Correlation**

## B3 P2 33 - PEDAGOGY OF SPECIAL ENGLISH - PAPER III

### Preamble

The aim of this course is to train the prospective teachers to master the methods and techniques in addition to the content at secondary level, and help them develop into effective teachers at secondary level.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	acquaint with modern methods and techniques of Teaching English and Evaluation at Secondary level.
CO2	acquire a working knowledge of the select language components and apply them while teaching Modern English Grammar and Usage at secondary level.
CO3	familiarize with the Phonology of English, and improve the fluency and expression of student teachers in English.
CO4	strengthen the writing skill of student teachers in English to write correct English themselves and be able to teach the same at Secondary level.
CO5	master the Language Elements used in the XI Standard English Course Book of Tamil Nadu Textbook and Educational Services Corporation.

### Unit - 1 : Techniques and Evaluation in ELT

(12 Hours)

- 1.1 Individualized Instruction Techniques
- 1.2 Small Group Teaching Techniques
- 1.3 Problems in the Evaluation of Language Skills
- 1.4 Tasks and Performances in Language Testing
- 1.5 Testing Competence in English

### Unit - 2 : Modern English Grammar and Usage - II

(12 Hours)

- 2.1 Phoneme and Syllable
- 2.2 Morpheme and Coinages
- 2.3 Compounds in English
- 2.4 Phrases and Clauses
- 2.5 Utterance and Sentence

### Unit - 3 : Enhancing the Oral Fluency

(12 Hours)

- 3.1 Describing and Interpreting pictures
- 3.2 Using AV aids to develop fluency
- 3.3 Story telling, Narrating incidents, Role play and Play reading
- 3.4 Extempore, Arguing in debates, Dramatization and Interview
- 3.5 Short speech and Giving Lectures

**Unit – 4 : Teaching of Writing - II****(12 Hours)**

- 4.1 Precis Writing
- 4.2 Note taking and Note making
- 4.3 Summary Writing – Ability to select and express concisely the points of importance
- 4.4 Interpreting Graphic Representations
- 4.5 Reporting – Formal and Informal

**Unit – 5 : Analysis of Reader in English****(12 Hours)**

- 5.1 Language Components of the Content of XI Standard English Reader of Tamil Nadu Textbook and Educational Services Corporation. [www.textbooksonline.tn.nic.in](http://www.textbooksonline.tn.nic.in)

**References**

1. Champa, T., & Sasikumar. J. (1996). *Writing with the purpose*. New Delhi: Oxford University Press.
2. Connor, J.D.O. (1997). *Better english pronunciation*. London: Cambridge University Press.
3. Geoffrey, L., & Stratbike, J. (1975). *A communicative grammar of english*. London: Cambridge University Press
4. Gunasekar, P. (1997). *Enrich your english*. New Delhi: Oxford University Press.
5. Narayanasamy, V.R. (1987). *Strengthen your writing*. New Delhi: Longman
6. Randolph, Q., & Sydneybaum. (1973). *A university grammar of english*. London: Longman
7. Sarah, F. (1984). *Written communication in english*. London: Orient Longman
8. Saraswathi, V. (1987). *Organised writing*. New Delhi: Longman.
9. Stannard, A.W. (1981). *Living english speech*. London: Orient Longman.
10. State Council of Educational Research and Training. (2018). *English course book, XI Standard*. Chennai: Tamil Nadu Text book and Educational Services Corporation. [www.textbookonline.tn.nic.in](http://www.textbookonline.tn.nic.in)
11. Widdowson. (1978). *Teaching english as communication*. London: Oxford University Press.

**Mapping of Course Outcomes (COs) with Programme Outcomes (POs)**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	3		3	2		3			3
CO2	3	3		3	2					3
CO3	3	2		3	2					3
CO4	3	2		2	3		3			3
CO5	3		2	3		3			2	3

**3 - High Correlation****2 - Moderate Correlation****1 - Low Correlation**

**B3 P2 43 - PEDAGOGY OF HISTORY - PAPER III****Preamble**

The aim of this course is to enable the student teachers to understand the content knowledge of the Indian History, Tamil Nadu History and the World History and equip themselves as masters in their subject.

**Course Outcomes (COs)**

On the successful completion of the course, student-teachers will be able to

CO1	perceive the socio-economic and political conditions of ancient India.
CO2	analyse the political conditions existed during the medieval period.
CO3	elaborate the advent of Europeans and the freedom movement in India.
CO4	develop the values of cultural heritage of Tamil Nadu.
CO5	assess the role of the UNO with the background knowledge of political history of the world.

**Unit – 1 : Ancient Indian History****(12 Hours)**

- 1.1 Prehistoric Period
- 1.2 Indus Valley Civilization
- 1.3 The Vedic Period
- 1.4 Jainism and Buddhism
- 1.5 Rise of Kingdoms- Kushana Empire

**Unit – 2 : Medieval India****(12 Hours)**

- 2.1 The north Indian kingdoms-The Rajputs
- 2.2 The kingdom of the Deccan
- 2.3 The south Indian Kingdoms
- 2.4 Arab and Turkish Invasion
- 2.5 Sultanate of Delhi and The Great Mughals

**Unit – 3 : Advent of the Europeans and the Freedom Movement****(12 Hours)**

- 3.1 Advent of the Europeans- Anglo-French Struggle
- 3.2 Rule of the English East Indian Company From AD 1773 - AD 1857
- 3.3 The Great Revolution of AD 1857
- 3.4 Freedom Movement in India AD 1885 -1947
- 3.5 India after Independence

**Unit – 4 : Tamil Nadu History****(12 Hours)**

- 4.1 Age of Sangam
- 4.2 Imperial Cholas, Pandiyas, Cheras, Pallavas
- 4.3 Cultural Heritage of Tamil Nadu
- 4.4 Role of Tamil Nadu in the freedom movement
- 4.5 The Justice Party

**Unit – 5 : World History****(12 Hours)**

- 5.1 Fascism and Nazism
- 5.2 First World War (AD 1914 – 1918)
- 5.3 World between the wars (AD 1919 - 1939) – Economic Depression
- 5.4 Second World War (AD 1939-1945)
- 5.5 The United Nations Organisation – European Union

**References**

1. Habib, I. (2011). *The indus valley civilization: People's history of India*. New Delhi: Tulika.
2. Department of School Education. *Text books – Social Science- VI to X*. Tamil Nadu Textbook and Educational Services Corporation. Chennai: SCERT.
3. National Council of Educational Research and Training. *Text books – Social Studies -VI to X*. New Delhi: NCERT.

**Mapping of Course Outcomes (COs) with Programme Outcomes (POs)**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1			2	3		2				2
CO2	2			3		2				2
CO3	2			3	2			2		
CO4			2	3		2		2		2
CO5	2	2	2	3		2		2		2

**3 - High Correlation****2 - Moderate Correlation****1 - Low Correlation**



## B3 P2 53 - PEDAGOGY OF MATHEMATICS - PAPER III

### Preamble

The aim of the course is to improve problem-solving abilities in different ways in the areas of set theory, algebra, geometry, coordinate geometry, trigonometry, statistics and probability in order to improve mathematics teaching and learning.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	compute the set language and functions, algebra, and matrices.
CO2	develop problem-solving abilities in the fields of theorem-based geometry.
CO3	solve coordinate system problems and propose the new ideas into practice.
CO4	examine the trigonometry formulae and concepts in their everyday routines.
CO5	analyse the statistics and probability ideas in their own task.

### Unit - 1: Set Language and Algebra

(12 Hours)

- 1.1 Set Language - Introduction - Description of Sets - Representation of a Set - Different kinds of Sets - Set operations - Representation of Set operations using Venn Diagram
- 1.2 Properties of Set operations - De Morgan's Laws - Cardinality of Sets - Relations - Functions
- 1.3 Algebra - Introduction - Algebraic Expressions - Polynomials - Remainder Theorem - Factor Theorem.
- 1.4 System of linear equations in two unknowns - Quadratic Polynomials - Synthetic Division - GCD and LCM
- 1.5 Rational Expressions - Square Root - Quadratic Equations. Matrices - Types of Matrices, Addition, Subtraction and Multiplication of Matrices.

### Unit - 2 : Geometry

(12 Hours)

- 2.1 Geometry Basics - Kinds of Angle - Complementary Angles - Supplementary Angles.
- 2.2 Parallel lines and Transversal - Triangles - types based on angles and symmetry - its properties.

- 2.3 Quadrilaterals - Family of Quadrilaterals - Properties of Trapezium, Parallelogram and Rhombus.
- 2.4 Basic Proportionality and Angle Bisector Theorems - related problems
- 2.5 Similar triangles - congruent triangles - Circles and Tangents - Pythagoras theorem

**Unit- 3 : Co-ordinate Geometry (12 Hours)**

- 3.1 Cartesian Coordinate System - Identifying the x-coordinate and the y-coordinate Quadrants - Distance between any two points - identifying the geometrical shapes using distance formula.
- 3.2 Section formula - internally - externally in the given ratio - Midpoint - Centroid of a triangle - Area of a triangle - Collinearity of three points - Area of the Quadrilateral.
- 3.3 Straight Lines - Angle of Inclination - Slope of a straight line - Condition for parallel lines and perpendicular lines in terms of their slopes.
- 3.4 Equation of straight line- horizontal and vertical line-neither vertical nor horizontal Slope-Point and Two-Points form - Slope-Intercept form - Intercepts form
- 3.5 General Form of Equation of a straight line - Equation of a line parallel to the line - Equation of a line perpendicular to the line - The point of intersection of two straight lines

**Unit - 4: Trigonometry (12 Hours)**

- 4.1 Introduction - Angle - Pythagoras Theorem - Trigonometric Ratios - Reciprocal Relations
- 4.2 Trigonometric Ratios of Some Special Angles - angles  $0^\circ$ ,  $30^\circ$ ,  $45^\circ$ ,  $60^\circ$ ,  $90^\circ$ .
- 4.3 Trigonometric Ratios for Complementary Angles - Method of using Trigonometric Table
- 4.4 Trigonometric identities - related problems
- 4.5 Heights and Distances - Line of sight - Angle of depression and angle of elevation - related problems.

**Unit - 5 : Statistics and Probability (12 Hours)**

- 5.1 Statistics - Data - Raw data - Grouped data - frequency table - converting raw data into grouped data
- 5.2 Measures of central tendency - mean, median, mode - direct and step deviation method.

- 5.3 Measures of dispersion - range - coefficient of range - standard deviation - actual mean method - assumed mean method - step deviation method.
- 5.4 Coefficient of variation - comparing the two groups using co-efficient of variation
- 5.5 Probability - Events - Equally likely events - Mutually exclusive events - Complementary events - Exhaustive events - Sure event - Impossible event - Classical definition of probability - Addition theorem on probability

### References

1. State Council of Educational Research and Training (2019). *Textbook of Mathematics*, VIII, IX, and X standard. Chennai: Tamil Nadu Text book and Educational Services Corporation.
2. National Council of Educational Research and Training. *Textbooks – Mathematics VIII, IX, and X*. New Delhi: NCERT.

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	1	2		3					1	
CO2		2		2					3	1
CO3		3		2						1
CO4		2		2					1	3
CO5		2		2					3	1

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## B3 P2 63 - PEDAGOGY OF PHYSICAL SCIENCE - PAPER III

### Preamble

The aim of this course is to develop an understanding of measurement and motion, liquid, solid and heat, gravitation electricity and magnetic field, matter, atomic structure, chemical equation and bonds, atoms and molecules in physics and chemistry.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	classify the fundamental units and symbols of physical quantities and equation of motion.
CO2	demonstrate knowledge of the liquid, solid, gas, heat, electricity and magnetic field.
CO3	recognise the concept of science related to various natural phenomena (such as Air, Water, Acids and Bases).
CO4	understand the meaning of chemistry in daily life.
CO5	gain knowledge of basic concepts of elements, atoms and molecules their applications.

### Unit - 1 : Measurement and Motion

(12 Hours)

- 1.1 Importance of accurate measurements, three characteristics of measuring instruments, SI Prefixes
- 1.2 Measuring Length, Mass and Time, screw gauge, principle of the screw gauge, pitch of the Screw, measuring long distances, astronomical unit, light year.
- 1.3 Rest and motion, types of motion, distance and displacement
- 1.4 Speed, velocity and acceleration, graphical representation of motion along a straight line.
- 1.5 Equations of motion, circular motion.

### Unit - 2 : Liquids, Sound and Heat

(12 Hours)

- 2.1 Pressure in a liquid, relative density, buoyant force or upthrust.
- 2.2 Archimedes' principle, some applications of Archimedes' principle, hydrometer.
- 2.3 Importance of sound, reflection of sound waves, range of hearing applications of ultrasound, Doppler Effect.

- 2.4 Energy-obtaining energy, mechanical energy-kinetic energy-potential energy.
- 2.5 Heat and gas laws, calculating the quantity of heat transferred, change of state, the gas laws, Charles' law

**Unit - 3 : Gravitation, Electricity and Magnetic Field (12 Hours)**

- 3.1 Balanced and unbalanced forces, first law of motion, inertia and mass, momentum, second law of motion, third law of motion, conservation of momentum, moment of force
- 3.2 Electric current and circuit, electric potential and potential difference, circuit diagram, ohm's law, resistance of a conductor, system of resistors.
- 3.3 Heating effect of electric current, joule's law of heating, role of fuse, domestic electric circuits, electric power
- 3.4 Chemical effect of electric current, electrolysis- electro chemical cells, primary and secondary cells, sources of energy, science today, magnetic effect of electric current and light
- 3.5 Magnetic field and magnetic lines of force, magnetic field due to current carrying conductor, force on a current carrying conductor in a magnetic field, electric motor, electromagnetic induction, electric generator.

**Unit - 4 : Matter, Atomic Structure (12 Hours)**

- 4.1 Classification of Matter, Physical States of Matter, Purity of Matter, Elements, Compounds
- 4.2 Mixtures characteristics of mixtures, types of mixtures, separation of different components of a mixture
- 4.3 Discovery of the nucleus, Rutherford's experiment, Rutherford's model of atom, Bohr's model of atom.
- 4.4 Discovery of neutrons, characteristics of fundamental particles, composition of nucleus - Atomic number and mass number, isotopes, electronic configuration of atoms
- 4.5 Periodic classification of elements - Modern periodic law, modern periodic table, characteristics of modern periodic table, metallurgy, occurrence of metals.

**Unit - 5 : Chemical Equation and Chemical Bonds (12 Hours)**

- 5.1 Types of ions, ions and valency, chemical formula, introduction for writing chemical equations, balancing the chemical equation

- 5.2 Periodic classification of elements, early attempts at classification of elements, Mendeleev's periodic table Mendeleev's classification of elements, metals and non- metals
- 5.3 Chemical bonds -types of chemical bond, formation of ionic and covalent bonds.
- 5.4 Formation of water molecule, soluble in water, differences between ionic and covalent compounds
- 5.5 Solute and solvent, types of solutions, solubility, factors affecting solubility

### References

1. State Council of Educational Research and Training. (2019). *Textbook of Science*, VIII Standard. Chennai: Tamil Nadu Text book and Educational Services Corporation.
2. State Council of Educational Research and Training. (2019). *Textbook of Science*, IX Standard. Chennai: Tamil Nadu Text book and Educational Services Corporation.
3. State Council of Educational Research and Training. (2019). *Textbook of Science*, X Standard. Chennai: Tamil Nadu Text book and Educational Services Corporation.
4. State Council of Educational Research and Training. (2019). *Textbook of Physics –First and Second year*. Chennai: Tamil Nadu Text book and Educational Services Corporation.
5. State Council of Educational Research and Training. (2019). *Textbook of Chemistry – First and Second year*. Chennai: Tamil Nadu Text book and Educational Services Corporation. <https://textbookcorp.tn.gov.in>

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	2	3		2					
CO2				3	2				1	2
CO3	3	2	3			3		2		
CO4				2	3		1	3		
CO5	3	2			3					2

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## SEMESTER IV

<b>Group A : Perspectives in Education</b>	
B4 CC 09	Curriculum Development and Instruction
B4 CC 10	Educational Management
B4 CC 11	Development of Moral and Social Values
<b>Group B : Curriculum and Pedagogical Studies</b>	
<b>Pedagogy 1</b>	
B4 P1 14	Pedagogy of English – Paper IV
B4 P1 24	Pedagogy of Computer Science – Paper IV
B4 P1 34	Principles of Commerce and Accountancy Education – Paper IV
<b>Pedagogy 2</b>	
B4 P2 14	Pedagogy of Biological Science – Paper IV
B4 P2 24	Pedagogy of Commerce and Accountancy – Paper IV
B4 P2 34	Pedagogy of Special English – Paper IV
B4 P2 44	Pedagogy of History – Paper IV
B4 P2 54	Pedagogy of Mathematics – Paper IV
B4 P2 64	Pedagogy of Physical Science – Paper IV
<b>Electives</b>	
B4 EL GC	Guidance and Counselling
B4 EL SE	Introduction to Special Education
B4 EL DM	Disaster Management
B4 EL CS	Communication Skills
B4 EL DR	Diagnostic and Remedial Teaching
B4 EL EE	Environmental Education
B4 EL PE	Physical Education
B4 EL EL	E-Learning Technology
<b>Group C : Enhancing Professional Capacities (EPC)</b>	
B4 EPC 4	Development of Inner Self and Professional Identity (DISPI)

## B4 CC 09 - CURRICULUM DEVELOPMENT AND INSTRUCTION

### Preamble

The aim of this course is to understand the determinants of curriculum concepts and conceptualize the process of curriculum planning, development and evaluation.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	understand the basic principles of curriculum construction.
CO2	summarise the elementary ideas of curriculum planning.
CO3	evaluate the processes involved in curriculum development.
CO4	analyse the different Models of Curriculum and Curriculum Evaluation.
CO5	evaluate the different approaches in the instructional tasks.

### Unit – 1: Introduction to Curriculum (12 Hours)

- 1.1 Curriculum: meaning - definition – scope
- 1.2 Bases of curriculum development: human development - social development - nature of learning - nature of knowledge and cognition
- 1.3 Educational objectives and curriculum development.
- 1.4 Role of curriculum in effective teaching-learning process - need for value based curriculum
- 1.5 Salient features of NCFTE – 2010 and National Educational Policy 2020 – School Education and Higher Education.

### Unit –2: Elementary Ideas of Curriculum Planning (12 Hours)

- 2.1 Curriculum planning: meaning and concept.
- 2.2 Nature of discipline and curriculum planning.
- 2.3 Basic considerations in curriculum planning: developmental – nature of discipline – social need – teacher related – institutional – environmental and economical
- 2.4 Curriculum planning in the 21st century: liberal education – global education – secular education – interdisciplinary studies
- 2.5 Possible future trends in curriculum planning: distance education – open education – lifelong education – mass education – vocational and career education – on-line learning – virtual learning



**Unit – 3: Process of Curriculum Development (12 Hours)**

- 3.1 Meaning and concept of curriculum development- steps involved in the curriculum development process
- 3.2 Philosophical foundations and curriculum development: Major schools of thought in philosophy and curriculum
- 3.3 Sociological foundations and curriculum development: need of the society, social change, social harmony and curriculum
- 3.4 Psychological foundations and curriculum development: Human development - major schools of thought in psychology
- 3.5 Challenges and issues in curriculum development

**Unit – 4: Models of Curriculum and Curriculum Evaluation (12 Hours)**

- 4.1 Curriculum evaluation – meaning, concept, need and importance.
- 4.2 Important aspects involved in curriculum evaluation.
- 4.3 Introduction to Models of curriculum.
- 4.4 Role of national level bodies in curriculum development and evaluation
- 4.5 Evaluation Techniques- self-appraisal, peer evaluation, reflective journals, portfolio assessment. Evaluating Classroom Processes (including internship)

**Unit – 5: Introduction to Instructional System (12 Hours)**

- 5.1 Systems approach in instruction
- 5.2 Role of teachers in instructional system.
- 5.3 Teacher controlled instruction.
- 5.4 Learner controlled instruction.
- 5.5 Group controlled instruction

**References**

- 1. Agarwal, J.C. (2010). *Development and planning of modern education*. Coimbatore:TBH.
- 2. Anju Bhati. (2012). *Curriculum technology and learning*. New Delhi: Anmol.
- 3. Arulsamy, S. (2010). *Curriculum development*. Hyderabad: Neelkamal.
- 4. Dash, B.N. (2007). *Curriculum planning and development*. India: Dominant.
- 5. Khan, M.S. (2004). *School curriculum*. India: APH.
- 6. Mangal, S.K., & Mangal. (2010). *Essentials of educational technology*. Coimbatore: TBH.
- 7. Mrunalini, T. (2007). *Curriculum development*. Hyderabad: Neelkamal.
- 8. National Council of Educational Research and Training. (2005). *National Curriculum Framework 2005*. India: NCERT.

9. Pannerselvam. (2010). *E-learning*. New Delhi: APH.
10. Promila, S. (2009). *Encyclopedia of curriculum development*. (Vol. 1). New Delhi: APH.
11. Rao, V.K. (2005). *Principles of curriculum*. New Delhi: APH.
12. Ritu, C. (2011). *Computers in teaching and learning*. New Delhi: Anmol.
13. Siddique, M.H. (2010). *Educational evaluation*. New Delhi: APH.

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	2	2	3	3	2		3	2	3
CO2	2	3	3	2	2	3		2	3	2
CO3	3	2	2	3	3	3		2	3	2
CO4	3	2	2	3	3	2		3	2	3
CO5	3	2	2	3	3	2		3	2	3

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## **B4 CC 10 - EDUCATIONAL MANAGEMENT**

### **Preamble**

The aim of this course is to develop knowledge about the Educational Management, Educational planning, Finance, Classroom Management Functions and contemporary management needs.

### **Course Outcomes (COs)**

On the successful completion of the course, student-teachers will be able to

CO1	recognise the changing concepts of management and administration at various levels of school.
CO2	explain the functions of educational planning and educational finance.
CO3	discuss the challenges and issues related to classroom management.
CO4	describe the types, traits and styles of leadership.
CO5	Create awareness of the quality management practices in Education.

### **Unit - 1: Introduction to Educational Management (12 Hours)**

- 1.1 Management - meaning, objectives, scope and functions.
- 1.2 Administration and Management - traditional and modern management.
- 1.3 Educational management: meaning, definition, scope and types.
- 1.4 Management at different levels - elementary, secondary and higher secondary.
- 1.5 Basic functions - planning, organizing, directing and controlling, co-ordination and evaluation.

### **Unit - 2: Educational Planning and Finance (12 Hours)**

- 2.1 Planning - meaning, nature and types.
- 2.2 Institutional planning - objectives, characteristics, procedure and techniques.
- 2.3 Educational planning - principles, kinds and approaches to educational planning.
- 2.4 Educational finance - factors influencing educational finance - sources of income and educational expenditure.
- 2.5 Budget: meaning, concept and types - preparation of educational budget.

### **Unit - 3: Classroom Management (12 Hours)**

- 3.1 Classroom climate - meaning and managing tasks - factors influencing classroom climate - classroom discipline

- 3.2 Role of communication in classroom management – structuring classroom communication strategies.
- 3.3 Classroom designs – learner centered; problem centered - managing group work
- 3.4 Classroom management – principles and techniques of classroom management – role of teacher.
- 3.5 Time management - effective utilization of available time.

**Unit - 4: Functions of Educational Management (12 Hours)**

- 4.1 Inspection and supervision – nature, scope, objectives and comparison.
- 4.2 Leadership – need, functions, types – duties and qualities of a leader.
- 4.3 Directing – meaning - its systematic process.
- 4.4 Decision making – providing guidance – staff morale – functions of teachers – maintenance of discipline.
- 4.5 Coordination – controlling - conflict management – crisis management.

**Unit – 5: Modern Management Practices (12 Hours)**

- 5.1 Quality in education – meaning and importance.
- 5.2 Quality issues in teacher education - system analysis for quality sustenance.
- 5.3 Total Quality Management in Education – concept and principles -its application.
- 5.4 Accreditation - concept – meaning and parameters.
- 5.5 Role of UGC and NAAC in Educational Planning and Management.

**References**

- 1. Ananda, W.P., & Guruge. (1984). *General principles of management for educational planners and administrators*. Paris: UNESCO.
- 2. Bell, L. (1988). *Management skills in primary schools*. London: Routledge.
- 3. Bhagia, N.M. (1990): *Educational administration in India and other developing countries*. New Delhi: Commonwealth.
- 4. Bhatnagar, S.S., & Gupta P.K.(2005). *Educational management*. Meerut: R.Lall.
- 5. Bush, T., & Les, B(2002): *The principles & practice of educational management*. London: Paul Chapman.
- 6. Bush, Tony.(1986): *Theories of educational management*. London: Harper & Row.
- 7. Kiranmayi, Y.S. (1989). *Management of higher education in India*. New Delhi: Crown.

8. Koontz, H., O'Donnel, C., & Weihrich, H. (1982). *Essentials of management*. New Delhi: Tata Mc Grawhill.
9. Krishnamacharyulu, V. (2005). *School management and systems of education*. Hyderabad: Neelkamal.
10. Luthans, F. (1998). *Organizational behaviour*. Boston: Irwin, McGraw Hill.
11. Mahajan, Baldev., & Khullar, K.K. (2002): *Educational administration in central government: structures, processes, and future prospects*. New Delhi: Vikas.
12. Milton, C. R. (1989). *Human behaviour in organizations*. USA: Prentice Hall.
13. Mukhopadhyay, M. (2005): *Total quality management in education*. New Delhi: Sage.
14. Musaazi, J.C.S. (1982): *The theory & practice of educational administration*. London: The Macmillan.
15. Naik, J.P. (1965): *Educational planning in India*. New Delhi: Allied.
16. Naik, J.P. (1982): *The educational commission & after*. New Delhi: Allied.
17. Pareek, U. (1988). *Organizational behaviour process*. Jaipur: Rawat.
18. Roger, S (1995): *Successful school management*. Tokyo : McGraw Hill.
19. Ronald, C. F. (1987): *A history of thought and practice in educational administration*. New York: Teachers College Press.
20. Rao, V.S.P., & Narayana. (1987). *Principles and practice of management*. New Delhi: Konark.
21. Sharma, R.C. (1983). *School management*. New Delhi: Sarita Prakashan.

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3		2		2		2			
CO2				3	3					1
CO3			2		3				2	
CO4	3		2				3	2	2	
CO5	1				2					2

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## B4 CC 11 - DEVELOPMENT OF MORAL AND SOCIAL VALUES

### Preamble

The aim of this course is to develop moral and social values among student teachers.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	describe the need and importance of moral and social values.
CO2	develop the values propagated by the national leaders.
CO3	explain the man making education of Swami Vivekananda.
CO4	identify various methods of teaching values.
CO5	elucidate the impact of technology development on value system.

### Unit – 1: Introduction to Moral and Social Values (12 Hours)

- 1.1 Values – meaning, concept, need, importance, objectives and types.
- 1.2 Theories of values – Psychological views of value development.
- 1.3 Value Education and post independent attempts - classification of values
- 1.4 Need for value education in 21st century
- 1.5 Historical perspectives of social, religious and moral education in India.

### Unit – 2: Inculcation of Values (12 Hours)

- 2.1 Role of family, society, peer group, mass media, eminent personalities, government, non-government organisation and educational institutions in value development.
- 2.2 Role of value oriented curriculum, moral instruction, cultural, recreational dignity of manual work. Health, cleanliness, tolerance, hospitality and community prayers.
- 2.3 Socio-economic status and values – attitude towards life and relationship between values and life
- 2.4 Role of teachers in promoting value education.
- 2.5 Moral and social values as promulgated by Mahatma Gandhi, Rabindranath Tagore, Sri Aurobindo.

### Unit – 3: Swami Vivekananda's Message for Value Development (12 Hours)

- 3.1 Practice of values from his early life
- 3.2 Early experiences of imbibing spiritual values from his guru Sri Ramakrishna.

- 3.3 Value education and service activities of Ramakrishna Math and Mission.
- 3.4 Swamiji's educational philosophy: Man making - character building education - concentration as method of education - Women's education - Education of Masses in India - Universal Brotherhood
- 3.5 Swamiji's Humanism and its educational implication.

**Unit - 4: Methods of Teaching Values (10 Hours)**

- 4.1 Experiential learning: case method - role play - simulations - games - structural experiences.
- 4.2 Method of attitudinal change: story telling - precept-ideal method - psycho- drama, socio-drama - identification method - ventilation method - interview method.
- 4.3 Spiritual therapy: meditation - prayer -yoga.
- 4.4 Integrating social and moral values through school subjects.
- 4.5 Teachers as role models: professional ethics - adjusting to individual differences - character development and sound human relations.

**Unit - 5: Evaluation and Value Development (10 Hours)**

- 5.1 Introspection techniques for value development.
- 5.2 Role of national level institutions for value development.
- 5.3 Impact of technology development on moral and social values.
- 5.4 Assessment of values using different types of tests.
- 5.5 Research perspectives on value education and research studies conducted on value development.

**References**

- 1. Arulsamy, S. (2013). *Peace and value education*. New Delhi: Neelkamal.
- 2. Avinashilingam, T. S. (1997). *Educational philosophy of Swami Vivekananda*. Coimbatore: Ramakrishna Mission Vidyalaya.
- 3. Avinashilingam, T.S. (2014). *Make me a man*. Coimbatore: Ramakrishna Mission Vidyalaya.
- 4. Basavanaraddi, I.V. (2013). *A monograph on Yogasana*. New Delhi: Moraji Desai National Institute of Yoga
- 5. Chilana, M.R., & Dewan, M.L. (2002). *The human value*. India: Concept Publishing Company.
- 6. Chitkara, M.G. (2003). *Education and human values*. India: A.P.H.
- 7. Erickson. (1994). *Stirring the head, heart and soul: Redefining curriculum and instruction*. India: Sage.

8. Gandhi, K.L. (1993). *Value education*. India: Bhargava.
9. Gupta, N.L. (1992). *Creativity and values*. India: Arya.
10. Iyengar, B.K.S. (2012). *Light on yoga. From first impression 2012*. India: Harper Collins.
11. Laxmi Devi. (1997) *Educational values*, India: Bhargava.
12. Max Muller, F.(1995). *Ramakrishna his life and Sayings*. India: Advaita Ashrama.
13. Meera Varma. (1975). *Moral development & Intelligence*. India: Arya.
14. Pandiamani. B.K. (2014). *A text book on value, spirituality and consciousness development*. Rajasthan: Rajayoga Education & Research Foundation (Education Wing)
15. Passi, B.K., & Prabhakar, S. (1991). *Value education*. India: Bhargava.
16. Piaget. J. (1932). *The moral judgement of the child*. London: Kegan Paul, Trench, Truner & Co.
17. Rajewar Rao. P. (1991). *The great Indian patriots*. India: Mittal.
18. Saraswathi, T.S. (1999). *Culture, socialisation and human development*. New Delhi: Sage.
19. Sarma,D.S. (1967). *The master and the disciple*. Chennai, India: Sri Ramakrishna Math.
20. Secretary of CBSE (2012). *Value education –Handbook for teachers*. New Delhi: Central Board of Secondary Education.
21. Sharma. S.R. (2006). *Education and democratic values*. India: Cosmo.
22. *Summary of Recommendations of the High level Seminar on value*, Simla, May 27-28 (1981)
23. Swami Jyotiramayananda. (1988). *Vivekananda his gospel of man making*. Pondicherry: All India Press.
24. Swami Ranganathananda. (2018). *Social responsibility of public administrators*. Vivekananda Institute of Human Excellence. Hyderabad: Ramakrishna Math.
25. Swami Vivekananda. (2018). *Lectures from Colombo to Almora*. Kolkata: Advaita Ashrama.
26. *The Complete works of Swami Vivekananda*. India: Advaita Ashrama Publication.
27. *The life of Swami Vivekananda*. India: Advaita Ashrama.
28. Tillman, D. (2003). *Living values activities for young adults*. USA: Sterling.
29. Venkataiah, N. (1998) .*Value education*, India: Bhargava.
30. Venkataramana Reddy, G. (2016). *India's ancient human settlement path finder for ideal rural and urban community life*. Vivekananda Institute of Human Excellence. Hyderabad: Ramakrishna Math.

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1			1	2	2	3	3	2	2	2
CO2	2		2	2	1	3	3	3	1	1
CO3	1	1	2		2	3	3	2	2	3
CO4	3		1	1		2	2		1	1
CO5	1	3			2		2	1	3	2

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**



## **B4 P1 14 - PEDAGOGY OF ENGLISH - PAPER IV**

### **Preamble**

The aim of this course is to offer conceptual knowledge and effective application of technology in learning English language, language speech mechanism and methods of testing language skills.

### **Course Outcomes (COs)**

On the successful completion of the course, student-teachers will be able to

CO1	adapt and apply technology in teaching and learning of English language.
CO2	grasp and utilize English language speech mechanism in communication.
CO3	organise their supra segmental features in speaking English language.
CO4	apply various strategies in testing language elements and skills.
CO5	analyse the English reader and evaluate the language elements in VIII Standard English text book.

### **Unit - 1 : Technology in Language Teaching and Learning (12 Hours)**

- 1.1 Electronic Dictionary and Thesaurus
- 1.2 Language Laboratory
- 1.3 Technology in English Language Teaching - CALL, Power Point, Videos and Educational CDs, e-Content, Interactive White Board, Blogs, Website and Smart Phone Apps.
- 1.4 Multimedia Courseware and Authoring Packages
- 1.5 Online learning and Social media- Community Radio - Gyan Vani -BBC Radio - Kalvi TV, Gyan Darshan, Diksha, e-Pathshala, SAKSHAT, MOOC.

### **Unit - 2 : Phonetics and Elements of Spoken English (12 Hours)**

- 2.1 English Speech Mechanism
- 2.2 Speech Organs - Mobile Organs and Immobile Organs
- 2.3 Classification of English Vowels - Articulation of English Vowels
- 2.4 Classification of English Consonants - Manner and Place of Articulation of English Consonants
- 2.5 Phonemic Transcription of Passages from VIII Standard English Course Book (Tamil Nadu Textbook and Educational Services Corporation.)

### **Unit - 3 : Supra-Segmental Units in English (12 Hours)**

- 3.1 Stress in English - Word Stress and Sentence Stress

- 3.2 Strong and Weak forms of Stress
- 3.3 Pause in English
- 3.4 Juncture in connected speech
- 3.5 Basic Patterns of Intonation in English – Falling Tone, Rising Tone, Falling-rising Tone

**Unit – 4 : Testing Language Skills (12 Hours)**

- 4.1 Tests and Examinations – Characteristics of a good Test – Types of tests
- 4.2 Testing Vocabulary
- 4.3 Testing Grammar and Usage
- 4.4 Testing Reading Comprehension
- 4.5 Testing Writing skills

**Unit – 5 : Analysis of Reader in English (12 Hours)**

- 5.1 Elements of Language from the Content of the VIII Standard English Reader of Tamil Nadu Textbook and Educational Services Corporation. [www.textbooksonline.tn.nic.in](http://www.textbooksonline.tn.nic.in)

**References**

- 1. Allen, H.B., & Campbell, R.N. (1972). *Teaching english as a second language*. New Delhi: Tata Mc Graw Hill.
- 2. Arnold. G.F. et.al. (1973). *English pronunciation practice*. London: Oxford University Press.
- 3. Balakumar, A. (2016). *Ict in Education*. Chennai: Polymath.
- 4. Balasubramanian, T. (1981). *A text book of english phonetics for Indian students*. New Delhi: Macmillan.
- 5. Baruah, T.L. (1992). *The english teacher's handbook*. New Delhi: Sterling.
- 6. Bright, J.A., & Mc Gregor, G. P. (1978) *Teaching english as a second language*. Singapore: Longman.
- 7. Champa, T., & Sasikumar, J. (1996). *Writing with the purpose*. New Delhi: Oxford University Press.
- 8. Collins, A. (1991). *Three different views of students: The role of technology in assessing student performance* (Technical Report No. 12). New York: Bank Street College of Education.
- 9. Connor, J.D.O. (1997). *Better english pronunciation*. London: Cambridge University Press.

10. Daniel, J. (1987). *An introduction to english pronunciation*. London : Oxford University Press.
11. Geoffrey, L.N. (1979). *A linguistic guide to english poetry*. London : Longman.
12. Harmer, J. (1990). *The practice of english language teaching*. Hong Kong : Longman
13. Kohli, A.L. (2003). *The techniques of teaching english in the new millennium*. New Delhi: Dhanpat Raj Publishing Company (P) Ltd.
14. Mrunalini, T., & Ramakrishna, A. (2014). *ICT in education*. Hyderabad: Neelkamal.
15. Mowla, S. (2004). *Techniques of teaching english*. Hyderabad : Neelkamal.
16. O'Malley & Chamot. (1997). *Learning strategies & second language acquisition*. London: Cambridge University Press.
17. Saraswathi, V. (2005). *English language teaching – Principles and practice*. Hyderabad: Orient Longman.
18. State Council of Educational Research and Training. (2020). *English Course Book, VIII Standard*. Chennai: Tamil Nadu Textbook and Educational Services Corporation. [www.textbooksonline.tn.nic.in](http://www.textbooksonline.tn.nic.in).
19. Tiwari, S.R. (2006). *Teaching of English*. New Delhi : Ajay.
20. Widdowson. (1978). *Teaching English as Communication*. London: Oxford University Press.
21. <http://diksha.gov.in>
22. <http://elt.oup.com>
23. <http://ndl.iitkgp.ac.in>
24. <http://sakshat.ac.in>
25. <http://swayam.gov.in>
26. <http://www.kalvitholaikaatchi.com>
27. [www.bbc.co.uk](http://www.bbc.co.uk)
28. [www.britishcouncil.org](http://www.britishcouncil.org)
29. [www.education.gov.in](http://www.education.gov.in)

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2	3	2	3		3	2	3		2
CO2	2	2	2	3			3		3	
CO3	2	3		3					3	
CO4	2			3	2					
CO5	2			3						2

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## B4 P1 24 - PEDAGOGY OF COMPUTER SCIENCE: PAPER IV

### Preamble

The aim of this course is to offer conceptual knowledge and effective application of educational technology in teaching learning process, acquaint the students with the computer language, networking and its educational applications.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	demonstrate the utilities of educational technology in teaching and learning.
CO2	operate with the co-curricular activities and teaching aids those are enhancing learning Computer Science.
CO3	construct and utilizing CAI packages for teaching.
CO4	familiarize with the fundamentals of 'BASIC' language.
CO5	choose, notify and use the Networking concept and its educational applications.

### Unit- 1: Educational Technology in Teaching and Learning Computer Science (12 Hours)

- 1.1 Educational Technology – Meaning, Importance and its role in Learning Comp. Science
- 1.2 Mass Media – Need and Importance in learning Computer Science
- 1.3 ET in Distance and Open Learning
- 1.4 Role of EDUSAT in Teaching and Learning Computer Science
- 1.5 Models of Teaching – Concept; Introduction to 'Concept Attainment Model'

### Unit - 2: Co-curricular Activities and Teaching Aids (12 Hours)

- 2.1 Co-Curricular Activities – Meaning, Role and Advantages in Computer Science
- 2.2 Teaching Aids – Concepts, Importance and Types
- 2.3 Audio-Visual Aids – Concepts and Advantages in teaching computer science
- 2.4 Multimedia – Concept and its Elements such as visuals, sounds, animation
- 2.5 Role of Multimedia Packages in Teaching and Learning Computer Science

**Unit – 3: Computer Laboratory Planning and Management (12 Hours)**

- 3.1 Computer laboratory – Need and Planning for computer laboratory.
- 3.2 Special features of Computer laboratory.
- 3.3 Setting up a computer laboratory – Essential infrastructure.
- 3.4 Laboratory Management – Laboratory routine for pupils – arranging practical for pupils.
- 3.5 Maintenance of records and its importance.

**Unit – 4: Hands-on-training in Teaching Computer Programming (12 Hours)**

- 4.1 Hands-on-Training – Meaning and importance
- 4.2 Organising Hands-on-Training for pupils.
- 4.3 Programme entry, editing, debugging and execution.
- 4.4 Diagnostic and Remedial teaching computer program.
- 4.5 Organising practical and evaluation of practical

**Unit – 5: WWW and its Rationale in Education – An Orientation (12 Hours)**

- 5.1 Internet and www – concept and applications
- 5.2 HTML – introduction, elements and uses
- 5.3 Simple web page development
- 5.4 Educational implications of www – WBI and its advantages in information dissemination
- 5.5 www in question banking and e-examination

**Practical:**

1. Preparing teaching material using 'Concept Attainment Model'
2. Preparation of Teaching aids in computer science
3. Developing simple web page
4. Hands-on-Training in operating computers
5. Maintain a record book containing at least 15 programs

**References**

1. Das, B.C. (2005). *Educational technology*. New Delhi: Sterling.
2. Grant Taylor. (1999). *HTML complete*. New Delhi: BPB.
3. Hasan, S.M. (2004). *Encyclopaedia of educational technology*. New Delhi: APH.
4. Janardan Prasad. (2005). *Audio-visual education*. New Delhi: Kanishka.
5. Joyce, B., Weil, M., & Showers, B. (1991). *Models of teaching*. New Delhi: Prentice-Hall of India.

6. Kraynak, J., & Habraken, J. (1997). *Internet 6-in-1*. New Delhi: Prentice-Hall of India.
7. Kumar K.L. (2000). *Educational technology*. New Delhi: New Age International.
8. Mangal, S.K. (2005). *Educational technology*. Ludhiana: Tandon.
9. Mangal, S.K., & Mangal, U. (2001). *Audio visual education*. New Delhi: Arya.
10. Mangal, S.K., & Mangal, U. (2010). *Essentials of educational technology*. New Delhi: PHI.
11. Ramesh Chandra. (2005). *Impact of media and technology in education*. New Delhi: Kalpaz.
12. Ramnath Sharma., & Chandra, S.S. (2007). *Advanced educational technology*. New Delhi: Atlantic.
13. Rawat, S.C. (2005). *Essentials of educational technology*. Meerut: R Lal Book Depot.
14. Rohan, S. P. (2002). *Educational technology*. New Delhi: Indian Publishers.
15. Sampath, K., Panneerselvam, A., & Santhanam. S. (2008). *Educational technology : Basics and applications*. Chennai: Shantha.
16. Sharma R.A. (2005). *Technological foundations of education*. Meerut: R.Lall Book Dept.
17. Sharma, R.A. (2005). *Essentials of educational technology and management*. Meerut: R Lal Book Depot.
18. Sharma, R.N., & Chandra, S.S. (2007). *Advanced educational technology*. New Delhi: Atlantic.
19. Singh, Y.P. (2005). *Instructional technology in education*. New Delhi: APH.
20. Sivarajan. (1999). *A practical hand book on audio visual education*. Calicut: Calicut University.
21. Suresh, J. (2008). *Web technology*. New Delhi: Magnus.
22. Vanaja, M., & Rajasekar. (2009). *Educational technology and computer education*. Hyderabad: Neelkamal.
23. Vaughan, T. (1997). *Multimedia making it work*. New Delhi: Tata McGraw-Hill.
24. Venkaiah, N. (2004). *Educational technology*. New Delhi: APH.

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	2		3	1				2	3
CO2	2	3		3					2	2
CO3		2		3		3			2	2
CO4	2	2		3					3	2
CO5		3		3	2				2	2

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## **B4 P1 34 - PRINCIPLES OF COMMERCE AND ACCOUNTANCY EDUCATION - PAPER IV**

### **Preamble**

The aim of this course is to develop competency in teaching Commerce and Accountancy and to instigate research attitude among students.

### **Course Outcomes (COs)**

On the successful completion of the course, student-teachers will be able to

CO1	identify the individual differences and choose appropriate pedagogy.
CO2	provide educational and vocational guidance and capable of selecting tests.
CO3	develop competency based instruction in teaching of Commerce.
CO4	evaluate the quality of Commerce text book, supplementary materials and websites.
CO5	develop research attitude in Commerce education.

### **Unit – 1: Exploring Learners of Commerce (12 Hours)**

- 1.1 Learner-meaning-categories of learner-significance-learners characteristics.
- 1.2 Concept of individual differences-nature-types of differences: inter Vs intra individual differences.
- 1.3 Factors affecting individual differences-dealing with individual differences-educational significance.
- 1.4 Areas of individual differences-aptitude, attitude, intelligence, interest, creativity and social characteristics of commerce learner.
- 1.5 Identification of gifted and slow learner-catering to individual differences-enrichment and remedial methods of teaching.

### **Unit – 2: Career Guidance for Commerce (12 Hours)**

- 2.1 Educational guidance - purpose - factors - educational guidance programme complementary role of teacher counsellor-parental collaboration in educational guidance.
- 2.2 Managing the guidance service-setting up of educational cell/unit-monitoring and evaluation-networking with community agencies.

- 2.3 Vocational guidance and counselling-nature-need-theories-process of vocational counselling-occupational information-discovering individual abilities and interests.
- 2.4 Measurement in guidance-need for psychological tests-different types of test- intelligence test-achievement test-aptitude test-personality inventories-projective techniques.
- 2.5 Techniques and skills in guidance-understanding the individual-case study-cumulative records-anecdotal records-interviews-follow-up.

### **Unit – 3: Competency Based Instruction in Teaching of Commerce (12 Hours)**

- 3.1 Competency based instruction-meaning –features of competency based instruction.
- 3.2 Steps in competency based instruction-identifying-analysing-explaining-imparting- conducting evaluation
- 3.3 Basic competencies of commerce teacher-contextual-content- transactional-co- curricular-instructional materials-competencies related to evaluation.
- 3.4 Social competencies-management competencies - competencies related to working with parents-competencies related to work with community-leadership competencies.
- 3.5 Inter disciplinary approach-enriched curriculum-homogeneous grouping-role of teacher.

### **Unit - 4: Critical Evaluation of Commerce Text Book (10 Hours)**

- 4.1 Text book of commerce-content-advantages-traits of a good textbook.
- 4.2 Criterion for selecting a good text book-proper use of text book-text book for commerce subjects.
- 4.3 Critical evaluation of different types of text books - CBSE - Samacheer Kalvi
- 4.4 Supplementary materials in commerce and accountancy-reference materials-technical documents-journals-reports and newspaper.
- 4.5 Evaluation of websites in commerce - online resources - blog - e-book - e-journals and official websites.

### **Unit – 5: Research in Commerce Education (14 Hours)**

- 5.1 Research-meaning-characteristics-classification of research.
- 5.2 Research needs in education-historical developments-classification of research methods-tools and techniques-analysis and interpretation of data.



- 5.3 Research in commerce education-qualities of good researcher-areas of research.
- 5.4 Review of research in commerce education-problems faced by the researcher in commerce education.
- 5.5 Current trends in commerce education-action research and case studies-research reporting.

## References

1. Albert, I.O. (1977). *A guide to problem, principles and process*. London: Harper & Row.
2. Anastasi, A. (1985). *Differential psychology* (3rd ed.) New York: Mc Millan.
3. Asfukel, D.S. (1957). *Guidance and counselling in the classroom*. Boston: Allyn and Bacon.
4. Bhati, A. (2012). *Curriculum, technology and learning*. New Delhi: Anmol.
5. Chopra, H.K., & Sharma, H. (2007). *Teaching of commerce*. Ludhiana: Kalyani.
6. Hurlock, E. (1950). *Adolescent development*. New York: Mc Graw Hill publishers.
7. Khan, M.S. (1982). *Commerce education*. New Delhi: Sterling.
8. Rao, S. (2005). *Teaching of commerce*. New Delhi: Anmol.
9. Singh, Y.K. (2009). *Teaching of commerce*. New Delhi: APH.
10. Willey, & Strong. (1970). *Group procedures in guidance*. New York: Harper & Brothers.

## Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1		2			3				2	
CO2	2				2	2	3			2
CO3	3	2		2	2				2	
CO4		2	2	3				2	2	
CO5	2	2		2	2	2			2	

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## B4 P2 14 - PEDAGOGY OF BIOLOGICAL SCIENCE – PAPER IV

### Preamble

The aim of this course is to provide the practical knowledge about the maintenance and usage of Science laboratory and giving various aspects and methods of evaluation.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	implement the skills of making teaching learning process experiential and joyful.
CO2	design the skill of preparing appropriate instructional aids and using them.
CO3	create the ability to plan and organize the Bio-Science laboratory.
CO4	recognise and use various resources of Biology Library.
CO5	integrate the importance of evaluation in teaching Biological Science.

### Unit – 1: Principles of Designing of curriculum

(12 Hours)

- 1.1 Curriculum – Definition and Meaning
- 1.2 Differences between Curriculum and Syllabus.
- 1.3 Various principles involved in curriculum Construction, Approaches – Topical, Logical, Psychological, Activity Centered and integrated.
- 1.4 B.S.C.S, Nuffield foundation NCERT Syllabus at upper primary, secondary and higher secondary
- 1.5 Print and non print medium in construction of Curriculum.

### Unit – 2: Effective Teacher and Classroom Transaction

(12 Hours)

- 2.1 Science teacher- Academic and Professional qualification, qualities of a good science teacher
- 2.2 Pre-Service Training- Professional Development, Need for In-service Training
- 2.3 Role model for good science learner.
- 2.4 Classroom climate: Autocratic, Democratic and Laissez faire pattern.
- 2.5 Flanders' System of Interaction Analysis.

### Unit – 3: Biology Laboratory organization

(12 Hours)

- 3.1 Laboratory – Meaning and Need
- 3.2 Planning and Layout of Laboratory – Secondary, Higher secondary
- 3.3 Bio – Science kit, advantages, types, kids at various level

- 3.4 First aid box – Medicine, Chemicals safety management Accidents and remedial measures
- 3.5 Maintenance and care – Stock resisters, Lab assistant, Equipments, Charts, Specimens, models, slides, skeletons.

#### **Unit – 4 : Learning resources in Biology – Library (12 Hours)**

- 4.1 Science Library – Objectives and importance.
- 4.2 Role of the Library in schools
- 4.3 organizations -Accommodation -Finance, Selection of Books at various levels – arrangements.
- 4.4 Defects of the Existing School Libraries
- 4.5 Use of internet, Website for the collection of information (Like ERIC, INFLIBNET, EBSCO)

#### **Unit – 5: Evaluation (12 Hours)**

- 5.1 Evaluation - Definition, meaning, need and importance.
- 5.2 Relative between assessment, measurement and evaluation.
- 5.3 Purpose of Evaluation – Characteristics of evaluation.
- 5.4 Process of Evaluation – Types of evaluation.
- 5.5 Advantages and functions of evaluation.

#### **References**

1. Ameeta, P. (2010). *Techniques of teaching biological science*. Hyderabad: Neelkamal.
2. Archer to mar. (2005). *Teaching of biology*. New Delhi: Kalpaz.
3. Chauhan, S.S. (2018). *Innovations in teaching learning process*. New Delhi: Vikas.
4. Jasim Ahamad. (2009). *Teaching of biological science*. New Dehi: PHI.
5. Mangal, S.K. (2017). *Teaching of biological science*. New Delhi: Arya.
6. Pradeep Kumar. (2010). *Web based technology in education*. New Delhi: APH.
7. Ramakrishna. (2012). *Methods of teaching life science*. New Delhi: Pearson.
8. Regina Mary. (2009). *Methods of teaching biology*. Chennai: G.V.
9. Sharma, R.C. (2010). *Modern teaching science*. New Delhi: Dhanpet Rai.
10. Venugopal, G. (2009). *Teaching of biology*. Chennai: Ram.

#### **Mapping of Course Outcomes (COs) with Programme Outcomes (POs)**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2	2		2	1		3		3	
CO2	1	3		2	2				1	1
CO3	2	3	1	2	3				2	1
CO4	2	2	1	2	2				2	3
CO5	3	2		2	2				1	2

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## B4 P2 24 PEDAGOGY OF COMMERCE AND ACCOUNTANCY – PAPER IV

### Preamble

The aim of this course is to make students acquaint with different models of teaching and understand the concepts of teaching Commerce and Accountancy.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	conduct an action research in Commerce education.
CO2	apply the models of teaching in Commerce.
CO3	compare the functioning of different educational organizations.
CO4	utilize the community resources and co-curricular activities in teaching of Commerce.
CO5	analyze the controversial issues related to commerce and accountancy.

### Unit - 1: Action Research in Commerce Education (12 Hours)

- 1.1 Action Research- meaning- its types.
- 1.2 Similarities and difference- action research and formal quantitative and qualitative research.
- 1.3 Hypothetical examples of practical action research.
- 1.4 Research topics from commerce and accountancy.
- 1.5 Research reporting.

### Unit - 2 : Models of Teaching (12 Hours)

- 2.1 Models of teaching - meaning and function.
- 2.2 Families of models of teaching and assumptions - types
- 2.3 Advanced organiser model
- 2.4 Jurisprudential inquiry model
- 2.5 Concept attainment model

### Unit - 3 : Role of Educational Organisations (12 Hours)

- 3.1 Educational organisations- MHRD, NCERT, SCERT, SRC.
- 3.2 Department of school education in promoting quality of school curriculum.
- 3.3 Functions of organisation- concurrent functions of the government.
- 3.4 Programmes organised to achieve the target under Article 45- RMSA.
- 3.5 School leadership and development programme- capacity building – school effectiveness.

### Unit- 4 : Community Resources and Co-curricular Activities in Commerce (12 Hours)

- 4.1 Community resources in commerce- developing link between school and community- interdependence of school and community.
- 4.2 Commerce club-organization - office bearers
- 4.3 Commerce magazine- Commerce laboratory
- 4.4 Running of school bank and cooperative store.
- 4.5 Planning for special visits to commercial markets, banks, LIC, stock exchange markets.

### Unit - 5 : Commercial Issues (12 Hours)

- 5.1 Issues related to the teaching of commerce and accountancy education
- 5.2 Teaching controversial issues in commerce and accountancy – WTO, GATT, GATS, Liberalisation, Privatisation and Globalisation.
- 5.3 Inflation, Disinvestment, e-commerce – environmental issues – consumer protection.
- 5.4 Online Trading – merits and demerits for the economical development
- 5.5 ISO 9000; 2000 Certification – need, procedure and importance for trading.

### References

1. Bhatia, K.K. (2001). *Foundations of teaching learning process*. Ludhiana: Tandon.
2. Boynton, L.O. (1995). *Methods of teaching book keeping*. Cincinnati: South Western.
3. Chandha, S.C (2006). *Educational technology and measurement*. Meerut: R.Lall .
4. Dhand, H. (2009). *Techniques of teaching*. New Delhi: APH.
5. Johnson, A.P. (2008). *Action research*. London: Pearson.
6. Joyce., & Well. (2004). *Models of teaching*. U.K: Prentice Hall of India.
7. Khan, M.S (1982). *Commerce education*. New Delhi: Sterling.
8. Rao, S. (2004). *Teaching of commerce*. New Delhi: Anmol.
9. Sharma, R.A., (2005). *Teaching of commerce*. Meerut: Surya.
10. Siddiqui, M.H. (2009). *Techniques of teaching*. New Delhi: APH.
11. Singh, R.P. (2005). *Teaching of commerce*. Meerut: Surya.
12. Sivarajan, K., & Lal, E.K. (2002). *Commerce education- Methodology of teaching and pedagogic analysis*. : Calicut: Calicut University.

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2		2	3	2				2	
CO2		2		3	2				2	
CO3				3				2		2
CO4	2			3		2	2	2		2
CO5		2	2	3					2	2

3 - High Correlation

2 - Moderate Correlation

1 - Low Correlation

## B4 P2 34 - PEDAGOGY OF SPECIAL ENGLISH - PAPER IV

### Preamble

The aim of this course is to train the prospective teachers to master the philology, technology based resources and introductory Linguistics and help them develop an effective teachers at secondary level.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	acquaint with the philological and semantic structure of English and use them while they speak and write.
CO2	enhance working knowledge in certain grammatical units and apply them while solving problems in teaching learning the same units.
CO3	familiarize with different contents of ELT elements in computer based media and use them effectively while teaching English at different levels.
CO4	acquire the knowledge of Linguistics and improve their competency as teachers of English.
CO5	master the Language Elements used in the XII Standard English Course Book of Tamil Nadu Textbook and Educational Services Corporation.

### Unit – 1 : Teaching of Philology and Semantics

(12 Hours)

- 1.1 Word Formation
- 1.2 Syntax in English
- 1.3 Semantics in English
- 1.4 Borrowings from other Languages
- 1.5 Language Variations

### Unit – 2 : Modern English Grammar and Usage - III

(12 Hours)

- 2.1 Basic Patterns of English
- 2.2 Tag Questions
- 2.3 Degrees of Comparison
- 2.4 Types of Sentences
- 2.5 Reported Speech

### Unit – 3 : Technology in Teaching Language at Higher Level

(12 Hours)

- 3.1 Computers in English Language Teaching
- 3.2 Multimedia and Authoring Packages
- 3.3 Social Media in Teaching Language Skills
- 3.4 e- Content – Meaning and Significance
- 3.5 Digital Library, Blogs, Google forms and Net-forums

**Unit – 4 : Introduction to Linguistics****(12 Hours)**

- 4.1 Linguistics – Scope of Linguistics
- 4.2 Branches of Linguistics
- 4.3 Types of Linguistics
- 4.4 Transformational Generative Grammar
- 4.5 Immediate Constituent Analysis

**Unit – 5 : Analysis of Reader in English****(12 Hours)**

- 5.1 Language Components of the Content of XII Standard English Course Book – Tamil Nadu Textbook and Educational Services Corporation. [www.textbooksonline.tn.nic.in](http://www.textbooksonline.tn.nic.in)

**References**

1. Baruah, T.L. (1992). *The english teacher's handbook*. New Delhi: Sterling.
2. Collins, A. (1991). *Three different views of students: The role of technology in assessing student performance*. New York: Bank Street College of Education.
3. Geoffrey, L., & Stratbike, J. (1975). *A communicative grammar of english*. London: Cambridge University Press.
4. Randolph, Q. (1983). *The use of language*. London: ELBS Oxford University Press.
5. Randolph, Q., & Sydneybaum. (1973). *A university grammar of english*. London: Longman.
6. Saraswathi, V. (2005). *English language teaching – Principles and practice*. Hyderabad: Orient Longman.
7. Sharma, R.A. (2005). *Fundamentals of teaching english*. Meerut : R. Lall.
8. State Council of Educational Research and Training. (2019). *English course book, xii standard*. Chennai: Tamil Nadu Textbook and Educational Services Corporation. [www.textbooksonline.tn.nic.in](http://www.textbooksonline.tn.nic.in).
9. Tarni Prasad. (2008). *A course in Linguistics*, New Delhi: PHI Learning.
10. [www.britishcouncil.com](http://www.britishcouncil.com)
11. [www.textbookonline.tn.nic.in](http://www.textbookonline.tn.nic.in)

**Mapping of Course Outcomes (COs) with Programme Outcomes (POs)**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	2		3	2					3
CO2	3	3		3	3					3
CO3	3	3		2	2					3
CO4	3		3	3					3	3
CO5	3		2	3		3			2	3

**3 - High Correlation****2 - Moderate Correlation****1 - Low Correlation**

## B4 P2 44 - PEDAGOGY OF HISTORY - PAPER IV

### Preamble

The aim of this course is to develop the technological skills that empower to evaluate effectively the content with co-curricular activities to have enriched attempts in History research.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	acquire the skills of content analysis in History.
CO2	apply the application of innovative technology in History.
CO3	describe the various types of evaluation and tests in teaching History.
CO4	enumerate various important co-curricular activities in History.
CO5	assimilate the different types of research in History.

### Unit - 1: Content Analysis (12 Hours)

- 1.1 Definition and purpose of Content analysis
- 1.2 Content analysis of History textbook at Primary levels
- 1.3 Content analysis of History textbook at Secondary levels.
- 1.4 Content analysis of History textbook at Higher Secondary levels
- 1.5 Finalizing units of analysis

### Unit - 2: Application of Innovative Technology (12 Hours)

- 2.1 Role of Multimedia and Internet in Teaching and Learning History
- 2.2 e-learning and m-learning
- 2.3 Interactive White Board, Teleconferencing and Virtual Classroom
- 2.4 Remote Sensing – Definition and its Importance in Teaching and Learning
- 2.5 Method of e-Content Preparation

### Unit - 3: Evaluation in History (12 Hours)

- 3.1 Meaning, Concept, Purpose and Types of Evaluation
- 3.2 Characteristics and Different Types of Test
- 3.3 Construction of Achievement Test
- 3.4 Types of Questions and Administration of an Achievement Test
- 3.5 Educational Statistics: Meaning and Need - Measures of Central Tendency, Measures of Dispersion and Correlation

### Unit - 4: Co-curricular Activities in History (12 Hours)

- 4.1 Co-curricular activities examples, meaning and definitions
- 4.2 Need and importance of Co-curricular activities in history
- 4.3 History Club, Museum and Exhibition
- 4.4 Field Trips, Excursions and Competitions
- 4.5 Role of a Teacher in Organizing Co-curricular Activities.



**Unit – 5: Research in History****(12 Hours)**

- 5.1 Research – meaning and characteristics.
- 5.2 Variables– Independent, Dependent, and Moderator.
- 5.3 Types of Research - pure, applied and action research.
- 5.4 Procedure to conduct Action Research
- 5.5 Need and Importance for Research in History - Historical Journals – Role of Archaeological Survey of India - Problems faced by a History Researcher

**References**

1. Aggarwal, J.C. (2004). *Teaching of history*. New Delhi : Vikas.
2. Best, J.W. (2010). *Research in education*. (10th ed). New Delhi: Prentice-Hall of India.
3. Biranchi Narayan Dash. (2002). *Teaching of history*. Hyderabad : Neelkamal.
4. Kochhar, S.K. (2005). *Teaching of history*. New Delhi : Sterling.
5. Koul, L. (2009). *Methodology of educational research*. New Delhi: Vikas.
6. Lynton, R.P. (1998). *Social science in actual practice*. India: Sage.
7. Mangal, S.K. (2007). *Statistics in psychology and education*. India: Prentice Hall of India.
8. Mangal, S.K., & Mangal, U. (2010). *Essentials of educational technology*. New Delhi: PHI.
9. Mohanty, J. (2007). *Modern trends in educational technology*. New Delhi: Neelkamal.
10. Radha Mohan. (2013). *Research methods in education*. Hyderabad: Neelkamal.
11. Sampath, K., Panneerselvam, A., & Santhanam, S. (2008). *Educational technology (basics and applications)*. Chennai: G Publishing Services.
12. Sharma, R.A. (2004). *Essentials of measurement in education and psychology*. Meerut: Surya.
13. Siddique, M.H. (2010). *Educational evaluation*. New Delhi: APH.
14. Soman, K. (2006). *Measurement and evaluation in education*. Calicut, India: Calicut University.
15. Verma, R. (1998). *Modern trends in teaching technology*. India: Bhargava.
16. Wadhwa, S. (2004). *Modern methods of teaching history*. New Delhi: Saru sons.
17. Yadav, N. (1994). *Teaching of history*. India: Bhargava.

**Mapping of Course Outcomes (COs) with Programme Outcomes (POs)**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3			3					2	
CO2	2	3		3	2				2	2
CO3				3	2				2	2
CO4	2	2		3	2	3	2	3		2
CO5	2	2	2	3		2	2		2	2

**3 - High Correlation****2 - Moderate Correlation****1 - Low Correlation**

## B4 P2 54 - PEDAGOGY OF MATHEMATICS - PAPER IV

### Preamble

The aim of this course is to teach mathematics effectively in psychological and technological aspects.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	apply the psychological concept while learning Mathematics.
CO2	design the special instructional approaches in teaching Mathematics.
CO3	create and use instructional aids for teaching Mathematics.
CO4	use various approaches to manage the classroom and develop leadership skills.
CO5	identify various gadgets and prepare e-content to equip the necessary skills to teach Mathematics in current trends.

### Unit - 1: Psychological Aspects of Learning Mathematics (12 Hours)

- 1.1 Formation of mathematical concepts - ideas of Piaget and Bruner.
- 1.2 Factors influencing the learning of mathematics - motivation, maturation, perception, special abilities, attitude and aptitude.
- 1.3 Behaviourism, humanism, constructivism learning mathematics.
- 1.4 Classroom interaction analysis and its implications in learning mathematics (FIACS)
- 1.5 Developing creativity in Mathematics classroom.

### Unit- 2 : Special Instructional Approaches (12 Hours)

- 2.1 Teaching mathematical concepts through Buzz session and mathematical games
- 2.2 Teaching mathematical generalisations by exposition and guided discovery
- 2.3 Instructional Methods - Lecturing, demonstration, Seminar, Group discussion and Task Analysis.
- 2.4 Individualised instruction - Programmed Learning - Linear Programming and Branching Programming.
- 2.5 Recreational activities – number patterns, magic squares; puzzles, paradoxes, rapid calculation, simple multiplication and test of divisibility.

**Unit 3 : Teaching Aids in Mathematics (12 Hours)**

- 3.1 Instructional Aids - need, uses and kinds of teaching aids - importance of teaching aids and their merits.
- 3.2 Projected and non-projected aids - improvised aids (paper folding and paper cutting) - its specific uses in teaching Mathematics.
- 3.3 Criterion for the selection of effective instruction materials.
- 3.4 Use of various instructional materials in teaching and learning of mathematics (Smart class room, LCD projector, Chart, Graphs, Models, Internet)
- 3.5 Organising Field-trips, excursion - need and importance, important places to visit (related to mathematics).

**Unit 4: Classroom Management (12 Hours)**

- 4.1 Classroom management - concept, principles of classroom management.
- 4.2 Factors influencing classroom management - techniques of classroom management - Time management
- 4.3 Systems approach - input- process - output and feedback - aspects in teaching learning process.
- 4.4 Classroom climate - factors influencing for creating a better classroom climate.
- 4.5 Leadership - types of teachers based on the leadership styles - teacher dominated pattern, laissez faire pattern and democratically planned pattern - significance.

**Unit - 5 : ICT in Mathematics (12 Hours)**

- 5.1 The influence of computers in teaching and learning of Mathematics.
- 5.2 Preparation of flow charts and fundamental ideas for writing programs.
- 5.3 The use of application software packages - MS office word, excel and Power Point presentation.
- 5.4 The uses of multimedia and internet and their applications to learning mathematics
- 5.5 E-learning, e-content - its applications in Mathematics. Interactive white board, smart classrooms, applications of Geogebra.

**References**

- 1. Aggarwal, J. C. (2008). *Teaching of mathematics*. UP: Vikas.

2. Bagyanathan, D. (2007). *Teaching of mathematics*. Chennai: Tamil Nadu Text Book Society.
3. Chandha, S.C. (2006). *Educational technology and measurement*. Meerut: R.Lall.
4. Costello, J. (1991). *Teaching and learning of mathematics*. London: Routledge.
5. Ernest, P. (1989). *Mathematics teaching*. London: The State of the Art, Falmer.
6. Goel, A. (2006). *Learn and teach mathematics*. New Delhi: Authors Press.
7. Kulshreshtha, A. K. (2008). *Teaching of mathematics*. Meerut: R.Lall Books Depot.
8. Mangal, S.K. (2001). *Foundations of educational technology*. Ludhiana: Tandon.
9. Mangal, S. K., & Mangal, S. (2005). *Essentials of educational technology and management*. Meerut: Loyal book.
10. Muthaiah, N., & Dharmarajan, T. (2010). *Romping of numbers*. Hyderabad : Neelkamal.
11. Muthaiah, N. (2004). *Magic square (Tamil)*. Coimbatore, India: Extension Department, Sri Ramakrishna Mission Vidyalaya College of Education.
12. Sharan, R., & Sharma, M. (2006). *Teaching of mathematics*. New Delhi: A.P.M..
13. Tripathi, P C., & Reddy, P.N. (2006). *Principles of management*. New Delhi: Tata McGraw Hill.

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	1				1		3	2		
CO2	2	3			1		1			1
CO3	1	3		3						2
CO4	2	1			1				3	1
CO5	1	3		3		1			2	1

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

**B4 P2 64 - PEDAGOGY OF PHYSICAL SCIENCE - PAPER IV****Preamble**

The aim of this course is to develop an understanding of Educational Technology and ICT skills, Co-Curricular Activities, Qualities of a good Teacher, Science laboratory and Learning resource in Physical Science.

**Course Outcomes (COs)**

On the successful completion of the course, student-teachers will be able to

CO1	list the Instructional aids and ICT tools for teaching Physical Science.
CO2	justify the need for various Co-curricular activities in Physical Science.
CO3	discuss the special qualities needed for Physical Science teachers and explain the need for professional growth.
CO4	plan a Physical Science laboratory and be familiar with the maintenance of Registers and Apparatus.
CO5	use the learning resources to enhance interactive learning on Science concepts.

**Unit - 1 : Educational Technology and ICT in Physical Science (12 Hours)**

- 1.1 Instructional Aids – Need, Uses and Kinds – importance of Audio visual aids and their merits.
- 1.2 Instructional material in physical science: Need and importance
- 1.3 Classification of instructional material (Projected material and non-projected material).
- 1.4 Role of Internet in Physical Science teaching-e-Learning, e-Content, Web based learning.
- 1.5 Using Video Conferencing, Interactive White Board, Virtual Classroom, Simulator -PhET, Algodoo in teaching Physical Science.

**Unit - 2 : Co-Curricular Activities in Physical Science (12 Hours)**

- 2.1 Introduction, Meaning and Definition of Co-Curricular Activities
- 2.2 Need and Importance of Co-Curricular Activities in physical sciences
- 2.3 Advantages of Co-Curricular Activities, Guidelines governing Conduct of Co- Curricular Activities.
- 2.4 Organisation of Excursions, Field trips and Science Museum
- 2.5 Organisation of Science Club, Science Fairs and Science Projects

**Unit - 3 : A Good Science Teacher (12 Hours)**

- 3.1 Science teacher- Academic and Professional qualification, qualities of a good physical science teacher
- 3.2 Pre-Service Training- Professional Development, Need for In-service Training,
- 3.3 Role model for good science learner.
- 3.4 Classroom climate: Autocratic, Democratic and Laissez faire pattern.
- 3.5 Flanders' System of Interaction Analysis.

**Unit - 4 : Physical Science Laboratory and its Uses (12 Hours)**

- 4.1 Need and Utility of Laboratory, Physical Science Laboratory- Structure and Design.
- 4.2 Organization of practical work: Administration, Grouping of Pupils, Individual Vs. Grouping.
- 4.3 Maintenance of Physical Science Laboratory- Registers storage of Chemicals and Apparatus.
- 4.4 Laboratory rules and Regulation for teachers and students.
- 4.5 Safety in the Laboratory, Accidents and First Aids, Essential Safety Measures for Possible Accidents.

**Unit - 5 : Learning Resources in Physical Science (12 Hours)**

- 5.1 Science Library – Objectives and importance.
- 5.2 Role of the Library in schools
- 5.3 Selection of Books at various levels – arrangements.
- 5.4 Defects of the Existing School Libraries.
- 5.5 Science journals, websites and blogs related science.

**Practicals:**

1. Evaluating reports of three websites in Physical Science.
2. Preparing laboratory instructional cards.
3. Collecting and analyzing question papers in science an achievement test in Physical Science based on blue print given in the text book.
4. Preparing working and non-working models related to the IX and X- std Syllabus.

## References

1. Arulselvi, E. (2007). *Teaching of science*. Chennai: Saradha.
2. Dhand, H. (2009). *Techniques of teaching*. New Delhi: APH.
3. Edgar Dale. (2012). *Audio - visual methods in teaching*. New York: The Dryden.
4. Gupta, S.K. (1985). *Teaching of physical science in secondary schools*. New Delhi: Sterling.
5. Heiss, Obourn., & Hoffman. (1985). *Modern science in secondary schools*. New Delhi: Sterling.
6. Joshi, D. (2012). *Methodology of teaching science*. New Delhi: Dorling Kindersley.
7. Kerr, S.T. (2016). *Technology and the future of schooling*. USA: University of Chicago press.
8. Rao, V.K. (2008). *Instructional technology*. New Delhi: APH.
9. Santhanam, S., Sampath, K., & Paneerselvam, A. (2008). *Educational technology. Basics and applications*. Chennai: Saradha.
10. Senthilkumar, S. (2009). *Teaching of physical science*. Samyuktha.
11. Sharma, R., & Chandra, S.S. (2007). *Advanced educational technology*. New Delhi: Atlantic.
12. Siddiqui, M.H. (2008). *Models of teaching*. New Delhi: APH.
13. Sonika, R. (2012). *Methodology of teaching science*. New Delhi: Dorling Kindersley.

## Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	2	3	1		2	2			
CO2			3		3			2		1
CO3	3				2	3			2	
CO4	3	2				1	3			1
CO5	3			2		3		2		1

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## B4 EL GC - GUIDANCE AND COUNSELLING

### Preamble

The aim of this course is to develop an understanding of principles, types and approaches in guidance and counselling, and its applications in the process of education.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	explain the basic principles and types of guidance.
CO2	familiar with various approaches of counselling.
CO3	identify the psychological tests and diagnosis process in counselling.
CO4	justify the need and importance of educational and vocational guidance in schools.
CO5	identify the counselling strategies of exceptional and disabled students.

### Unit – 1 : Basic Concepts in Guidance (12 Hours)

- 1.1 Guidance – concept, definition and principles.
- 1.2 Tracing guidance movement in India.
- 1.3 Important types of Guidance: Educational Guidance, Vocational Guidance, Personal Guidance.
- 1.4 Guidance needs related to education.
- 1.5 Guidance at the elementary, secondary and higher secondary levels.

### Unit – 2 : Basic Concepts in Counselling (12 Hours)

- 2.1 Counselling – concept, definition - goals – Guidance versus Counselling.
- 2.2 Approaches to counselling - directive or authoritarian (Psychoanalytic)
- 2.3 Humanistic approach – Carl Roger’s self-theory.
- 2.4 Behaviouristic approach to counselling – eclectic approach
- 2.5 Factors influencing the counselling process – specific skills of a Counsellor.

### Unit – 3 : Psychological Testing and Diagnosis (12 Hours)

- 3.1 Types of psychological tests – its uses in counselling.
- 3.2 Interview schedules, questionnaire, health records, autobiography, case study, cumulative record and anecdotal records.
- 3.3 Developmental Screening test – Study habit Inventory – Personality Questionnaire



- 3.4 Adjustment Inventory – DAT - Group Intelligence Test
- 3.5 Creativity test – Problem solving inventory – Achievement Motivation Scale

**Unit – 4 : Educational and Vocational Guidance (12 Hours)**

- 4.1 Educational Guidance – definition, objectives and importance.
- 4.2 Basic principles of Educational Guidance.
- 4.3 Existing educational opportunities – challenges and issues.
- 4.4 Vocational Guidance – definition and aims
- 4.5 Vocational Guidance – implementation strategies.

**Unit – 5 : Counselling for Exceptional and Professional Preparation (12 Hours)**

- 5.1 Exceptional Learners: Learners with disabilities –Gifted learners
- 5.2 Learners with disabilities: Learning disabilities, Attention deficit hyperactivity disorder, Mental retardation, Physical disorders, Sensory disorders, speech and Language disorders, Emotional and Behavioural disorders.
- 5.3 Counselling strategies for Regular Teachers to work with learning disorder learners.
- 5.4 Counselling preparation and professional issues – academic preparation – practical skills – Ethical standards.
- 5.5 Selection and training of counsellors – conception of a professional worker.

**References**

- 1. Adams, J. F. (1995). *Problems in counselling*. New York: Academic Press.
- 2. Barkti, B. G., & Mukhopadhyah, B. (2008). *Guidance and counselling*. New Delhi: Sterling.
- 3. Drummond, R. J., & Jones, K. D. (2006). *Assessment procedures for counsellors and helping professionals* (6th ed.). Upper Saddle River. NJ: Merrill/Prentice Hall.
- 4. Gibson, R. L., Mitchell, M. H., & Higgins, R. E., (1993). *Counselling in the elementary school: A comprehensive approach*. Boston: Allyn & Bacon.
- 5. Inamori, K. (1995). *A passion for success*. New York: Mc Graw-Hill.
- 6. Krumboltz, J.D. (Ed) (1999). *Revolution in counselling: Implications of behavioural Science*. Boston: Houghton Mifflin.
- 7. Peters, T.J., & Waterman, R.H. (1982). *In search of excellence*. New York: Harper & Row.
- 8. Smead, R. (1995). *Skills and techniques for group work with children and adolescents*. Champaign,IL: Research Press.

9. Super, D. E. (2009). *The psychology of careers*. New York: Harper & Row.
10. Tharp, R.G., & Wetzel, R. (1999). *Behaviour modification in the natural environment*. New York: Academic Press.
11. Whiston, S. C. (2005). *Principles and applications of assessment in counselling* (2nd ed.). Belmont, CA: Thomson/ Brooks/ Code.
12. Wrenn, C. G. (2008). *The counsellor in a changing world*. Washington, DC: American Personnel and Guidance Association.
13. Yalom, I., & Leszcz, M. (2005). *The theory and practice of group psychotherapy* (5th ed.) New York: Basic Books.
14. Zeran, F. R., & Riccio, A. C. (1998). *Organization and administration of guidance services*. Skokie, IL: Rand McNally.

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	1	2			3	2	3	1	2	1
CO2	2	2		2	3		2		2	1
CO3	1	3			2	2	3		2	2
CO4		1		1	2		2	1	2	3
CO5	2	1	1		3	2	2		1	1

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## **B4 EL SE - INTRODUCTION TO SPECIAL EDUCATION**

### **Preamble**

The aim of this course is to understand the characteristics, strategies and special needs of the students.

### **Course Outcomes (COs)**

On the successful completion of the course, student-teachers will be able to

CO1	familiar with the concept of special education and its classification.
CO2	develop the intervention strategies of gifted and mentally retarded.
CO3	design the meaning, classification, characteristics, need and importance of intervention strategies for various disabilities.
CO4	predict the characteristics and types of disorders.
CO5	integrate elaborate service delivery model in education and rehabilitation.

### **Unit - 1 : Basic Concepts on Special Education (12 Hours)**

- 1.1 Special Education - meaning, need and its classification.
- 1.2 Rehabilitation Council of India - objectives and functions.
- 1.3 Salient features of PWD Act 1995, NTA 1999, RCI 2000 (A), RPwD Act, 2016.
- 1.4 Role of Governmental and Non-Governmental agencies in special education.
- 1.5 Development of special education since 1980.

### **Unit - 2 : Fundamentals of Gifted and Mentally Retarded (12 Hours)**

- 2.1 Gifted – definition, meaning and characteristics.
- 2.2 Gifted - Need and importance of intervention strategies.
- 2.3 Mentally retarded - definition, meaning, characteristics and classification.
- 2.4 Mentally retarded - Need and importance of intervention strategies.
- 2.5 Identification process of gifted and mentally challenged

### **Unit - 3 : Basics of Physical Disabilities and Learning Disabled (12 Hours)**

- 3.1 Meaning, characteristics, classification, need and importance of intervention strategies of orthopaedic impairment.
- 3.2 Meaning, characteristics, classification, need and importance of intervention strategies of hearing impairment.

- 3.3 Meaning, characteristics, classification, need and importance of intervention strategies of visual impairment.
- 3.4 Meaning, characteristics and types of learning disabled.
- 3.5 Need and importance of intervention strategies for learning disabled.

**Unit – 4 : Introduction to other disabilities (12 Hours)**

- 4.1 Meaning and characteristics of attention deficit disorder.
- 4.2 Meaning and characteristics of attention deficit hyperactive disorder.
- 4.3 Meaning and characteristics of emotionally disturbed children.
- 4.4 Meaning and characteristics of Autism Spectrum disorders.
- 4.5 Meaning and classification of multiple disabilities.

**Unit – 5 : Service delivery Models in Education, Rehabilitation, Role of Family an Miscellaneous Items (12 Hours)**

- 5.1 Service delivery models in special education.
- 5.2 Service delivery models in rehabilitation.
- 5.3 Role of family involvement in special education
- 5.4 Concessions, scholarships pertaining to special education.
- 5.5 Concessions pertaining to rehabilitation.

**References**

- 1. Algozzire & Yesseldyke, E. (2006). *Effective instruction for students with special needs: A practical guide for every teacher*. Thousand Oakes, CA: Corwin.
- 2. Bigge.J.L., & Stump.C. (1999). *Curriculum assessment and instruction for students with disabilities*. Belmont CA: Wadworth.
- 3. Daniel, H. P., & James, K.M. (1999). *Exceptional learners- introduction to special education*. Boston: Allyn and Bacon.
- 4. Fanel, N. (2009). *Foundations of special education: An introduction*. Singapore: Wiley-Balckwell.
- 5. Kundu, C.L. (2003). *Status of disability in India 2003*. New Delhi: Rehabilitation Council of India.
- 6. Kundu, C.L. (2000). *Status of disability in India 2000*. New Delhi: Rehabilitation Council of India.
- 7. Lokanandha Reddy, G., Ramar, R. & Kusuma, A. (2006). *Education of children with special needs*. New Delhi: Discovery.

8. Lokanandha Reddy, G., Santhakumari, P., Kusuma, A. & Shyamala, V. (2005). *Behaviour disorders in children: Identification, assessment and intervention strategies*. New Delhi: Discovery.
9. Lewis, R.B., & Dorskey, D.H. (1988). *Teaching special children in the mainstream* (3rd ed.). Columbia: Englewood.
10. Longman, J. (2003). *Listening to sounds and signs*. Germany: CBM International.
11. Margaret, G., Werts, Richard, A. Culatta., & James, R. Tompkins. (2011). *Fundamentals of special education: What every teacher needs to know*. New Delhi: PHI.
12. Richard L. Simpson (2005). *Autism spectrum disorders: Interventions and treatments for children and youth*. New Delhi. Sage.
13. Yesseldyke, E.J. (1998). *Special education - A practical approach for teachers*. New Delhi: Kaniska.

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2	2	1	2	3	1	1	1	2	1
CO2	2	2	1	2	3	1	3	1	2	1
CO3	2	2	2	2	3		3	2	2	1
CO4	1	2	1	2	3	1	3	2	2	1
CO5	2	3	2	2	3			1	3	1

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## B4 EL DM - DISASTER MANAGEMENT

### Preamble

The aim of this course is to develop the awareness on various disaster management strategies that helps to serve as a responsible citizen to respond in the needed situations with the extended hands of government and private organizations that scatters the values of a real human being.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	explore the concept of disaster management.
CO2	assimilate the types of degradation and disaster hazards.
CO3	assess the role of disaster management authorities at national and state level.
CO4	identify the role of government and private agencies in disaster management.
CO5	realise the role of educational institutions and technologies in disaster management.

### Unit – 1: Introduction of Disaster Management (12 Hours)

- 1.1 Disaster – definition, meaning and types.
- 1.2 Disaster profile in India and states at various levels.
- 1.3 Creating awareness of disaster management.
- 1.4 Reducing the effects of disaster – New approach.
- 1.5 Disaster management – functions.

### Unit – 2 : Degradation and Disaster Hazards (12 Hours)

- 2.1 Degradation: Definitions, meaning and types.
- 2.2 Environmental hazards: Definitions, meaning and types.
- 2.3 Difference between pollution and hazards.
- 2.4 Endogenous and Exogenous disasters. Definitions, meaning and types.
- 2.5 Natural disaster and man-made disaster – effects and response.

### Unit - 3 : Authorities of Disaster Management (12 Hours)

- 3.1 Hierarchical Structure of Authorities of Disaster Management.
- 3.2 Disaster Management Authorities – NDMA and SDMA

- 3.3 National Executive Council – Structure and Functions.
- 3.4 State Executive Council – Structure and Functions.
- 3.5 Local, District and Regional Level Executive Council – Structure and Functions

**Unit – 4 : Roles of Government, Public and Private Sectors in Disaster Management (12 Hours)**

- 4.1 Pre-disaster, disaster and Post disaster. Operations – Government Public and Private sector.
- 4.2 Creation of NDRF and SDRF in disaster management.
- 4.3 Disaster Response Mechanisms – Role of Social Media.
- 4.4 District emergency operation center – Functions
- 4.5 Role of NIDM and SIDM - Training programs to the personnel's: Rehearsal, Classroom exercise, functional exercise field exercise.

**Unit – 5 : Roles of Educational Institutions, Technologies and Recent Acts in Disaster Management (12 Hours)**

- 5.1 Role of Teachers and Students in Disaster Management
- 5.2 Role of Technology – Remote Sensing System, Ham Radio, IT - Functions.
- 5.3 INCOIS – Functions in Disaster Management
- 5.4 GIS, GPS and other Emerging Technologies – Application and Uses
- 5.5 Disaster Management Act (2005), Disaster Management Policy (2009) and National Green Tribunal Act (2010)

**References**

- 1. Chakraborty, U.K. (2007). *Industrial disaster management and emergency response*. New Delhi: Asian.
- 2. Disaster Management Act. (2005). New Delhi: Ministry of Home Affairs, Government of India.
- 3. Disaster Management in India. (2011). New Delhi: Ministry of Home Affairs, Government of India.
- 4. *Good practices in community based disaster risk management*. GoI-UNDP Disaster Risk Management Programme (2002 – 09).
- 5. Goudie, A. (1990). *Geomorphological techniques*. London, UK: Academic Division of Unwin Hyman Ltd.
- 6. Murthy, D.B.N. (2012). *Disaster management*. New Delhi : Deep and Deep.

7. National Disaster Management Authority. (2009). *National policy on disaster management*. New Delhi: NDMA.
8. National Institute of Disaster Management. (2005). *District disaster management plan-model template*. New Delhi: NIDM.
9. Parasuraman, S., & Unnikrishnan, P.V (Ed.). (2000). *India disaster report: Towards a policy initiative*. New Delhi: Oxford & IBH.
10. Sahni, P., Dhameja, A., & Medury, U. (2001). *Disaster mitigation*. New Delhi: PHI Learning.
11. United Nations Development Programme. (2004). *A global report – Reducing disaster risk: A challenge for development*. New York: UNDP.

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2	2		3	2	2				2
CO2	2	2	2	3		2	2	2	2	2
CO3	2		2	3	2			2		2
CO4	2	2	2	3				2	2	2
CO5	2	2	2	3	2	2	2	2	2	2

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**



## **B4 EL CS - COMMUNICATION SKILLS**

### **Preamble**

The aim of this course is to develop the awareness of fundamentals of language skills and to train them to master in language skills Listening, Speaking, Reading and Writing and also to apply those skills in day to day life.

### **Course Outcomes (COs)**

On the successful completion of the course, student-teachers will be able to

CO1	explain the concept, principles of communication and its application in teaching learning process.
CO2	familiarize with components of listening skill that are useful in the classroom transaction.
CO3	get trained in the skill of speaking and the components of this skill.
CO4	familiarize with the skill of reading, its methods of teaching and evaluation.
CO5	develop the skill of writing and evaluation techniques of writing skill.

### **Unit - 1 : Principles of Communication (12 Hours)**

- 1.1 Communication - Definition and concept - Theories of communication - communication cycle.
- 1.2 Barriers to communication - causes of barriers to communication and ways of overcoming them.
- 1.3 A four-fold analysis of Communication skills - Skill of Listening, Speaking, Reading and writing.
- 1.4 Values of Communication skills in the modern context - Visual and Multimedia Communication.
- 1.5 Importance of Communication skills for teachers - Communication in the classroom - Teaching as communication.

### **Unit - 2 : Skill of Listening (12 Hours)**

- 2.1 Listening as a receptive skill.
- 2.2 Rules for effective listening.
- 2.3 Components of listening.
- 2.4 Evaluation of listening - Immediate recall, recognizing transitions, recognizing word meaning and Listening comprehension.
- 2.5 Teacher's Role in the development of Listening skill among the students.

**Unit – 3 : Skill of Speaking (12 Hours)**

- 3.1 Speaking as a productive skill.
- 3.2 Characteristics of effective speaking.
- 3.3 Components of the skill of speaking.
- 3.4 Evaluation of speaking - Hitchman Rating Scale, Role play Technique - Walter Bartz scale for role play - Schulz communicative competence scale - Oral interview or Live conversation.
- 3.5 Teacher's role in the development of speaking skill among the students.

**Unit – 4 : Skill of Reading (12 Hours)**

- 4.1 Reading as the first of the three R's - Values of Reading.
- 4.2 Psychology of reading - perceptual process - the eye movement, the eye voice; eye- memory span.
- 4.3 Factors affecting reading ability - reading readiness.
- 4.4 Methods of teaching reading.
- 4.5 Evaluation of reading - reading scales and inventory.

**Unit – 5 : Skill of Writing (12 Hours)**

- 5.1 Writing as a complex skill - Difference between Oral and Written communication.
- 5.2 Components of Effective written communication.
- 5.3 Role of language - style, content and presentation, effective use of vocabulary.
- 5.4 Writing for mass media and Journalism.
- 5.5 Evaluation of writing skill- Assessment Techniques- Teacher's Role in the development of writing skill.

**References**

- 1. Buch, M.B. (1998). *Fourth survey of research in education*. (Vol. I). New Delhi : NCERT.
- 2. Buch, M.B. (2003). *Fifth survey of research in education*. (Vol. I). New Delhi: NCERT.
- 3. Chellappan, C. (1998). *English for science and technology*. Chennai: Anna University.
- 4. Cunningsworth, A (2007). *Evaluating and selecting EFL teaching material*. London: Heinemann.
- 5. Karpagakumaravel, R. (1999). *Communication skills in english - A Technology of Evaluation*. Coimbatore: Suri.
- 6. Malhotra. (1996). English for global communication. *The Journal of English Language Teaching*, 34(1),123-134.

7. Mohan, S., & Sasikala, R. (1998). Developing an evaluate scale for oral english. *The Journal of English Language Teaching*. 33(1)36-42.
8. Singh, R.R. (1991). *Education for the twenty first century: Asia pacific perspectives*. Bangkok: UNESCO.
9. Ranganayaki, M.A. (2006). Development of communicative techniques and materials to teach and test written english at the secondary level. Vallabh Vidyanagar, India: H.M. Patel Institute of English Training and Research.
10. Tickoo. (1998). *Communication skills in english*. ELTAI.

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2		2	3	2	2				
CO2	2		2	3						
CO3	2	2		3	2	2	2		3	2
CO4	2	2		3			2		3	2
CO5	2			3			2		3	2

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## B4 EL DR - DIAGNOSTIC AND REMEDIAL TEACHING

### Preamble

The aim of this course is to make student teachers to familiarize with learning difficulties, diagnosing different learning disabilities and application of appropriate tools and remedial measures to overcome the learning difficulties.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	diagnose individual differences in learning and adopt suitable teaching strategies to handle students with individual differences.
CO2	identify various learning difficulties among students and provide appropriate remedial teaching to the students.
CO3	familiarize with test and tools of diagnosing students' learning difficulties and adopt suitable approaches to overcome learning difficulties.
CO4	identify the students with reading and writing disabilities, and apply suitable teaching techniques to reduce the difficulties.
CO5	recognize students with arithmetic difficulties and employ suitable teaching techniques to reduce the difficulties.

### Unit – 1 : Introduction of Diagnostic and Remedial Teaching (12 Hours)

- 1.1 Meaning and concept of Diagnostic and Remedial Teaching.
- 1.2 Purpose of Diagnostic and Remedial Teaching.
- 1.3 Importance of Early Diagnostic and remediation.
- 1.4 Different areas of Diagnostic: Spoken, written, arithmetic, social and psychological.
- 1.5 Understanding individual difference in learning.

### Unit – 2 : Learning Difficulties (12 Hours)

- 2.1 Definitions and concept of Learning Difficulties.
- 2.2 Types of Learning Difficulties.
- 2.3 Causes of Learning Difficulties.
- 2.4 Characteristics of Learning difficulties.
- 2.5 Identification of students with Learning Difficulties.

**Unit – 3 : Assessment Tools of Diagnosis (12 Hours)**

- 3.1 Informal Assessment: Curriculum based – Criterion referenced - observations – interviews – questionnaires – check lists.
- 3.2 Formal Assessment: Intelligence – Academic – Sensory functioning - perceptual functioning – language functioning.
- 3.3 Understanding the learning styles: Visual – Auditory – Tactile and Kinesthetic Learners.
- 3.4 Social, emotional and environmental aspects for learning.
- 3.5 Interpreting the assessment and test scores.

**Unit – 4 : Reading and Writing Difficulties (12 Hours)**

- 4.1 Meaning and concept of Reading and writing difficulties.
- 4.2 Diagnosing reading and writing difficulties: observation – informal – reading inventory – Error analysis – Johnson and Myklebust approach - Gestalt approach.
- 4.3 Causes of reading and writing difficulties.
- 4.4 Characteristics of reading and writing difficulties.
- 4.5 Teaching approaches and remedial methods.

**Unit – 5 : Arithmetic Difficulties (12 Hours)**

- 5.1 Meaning and concept of Arithmetic Difficulties.
- 5.2 Characteristics of Arithmetic difficulties.
- 5.3 Causes of Arithmetic difficulties.
- 5.4 Diagnosing arithmetic difficulties: Content and skill areas – psychomotor abilities – Cognitive factors – Emotional factors.
- 5.5 Teaching approaches and remedial methods.

**References**

- 1. Gargiulo, R.M. (2003). *Special education in contemporary society*. Singapore: Wadsworth.
- 2. Krishna Babu & et.al. (2004). *Reading disabilities*. New Delhi: Sonali.
- 3. Lerner, J (1985). *Learning disabilities – theories, diagnosis, and teaching strategies*. Boston, USA. Houghton Mifflin Company.
- 4. Reddy, L. (1997). *Slow learners their psychology and instruction*. India: Bhargava.
- 5. Reddy, L. (2000). *Education of children with special need*. New Delhi: Discovery.
- 6. Reddy, L. (2000). *Learning disabilities practical guide to practitioners*. New Delhi: Discovery.

7. Reddy, L. (2004). *Language disorders and intervention strategies*. New Delhi: Discovery.
8. Sharma, R.A. (2004). *Fundamentals of special education*. Meerut: R. Lall.
9. Turkington, C. (2004). *Learning disabilities*. New Delhi: Viva Books.
10. Ysseldyke, J.E. (1998). *Special education*. New Delhi: Kanishka.

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	2			3	2		2			
CO2	2	2		3	2					
CO3	2		2	3	2		2			
CO4	2			3	2	2				2
CO5	2			3	2					2

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## **B4 EL EE - ENVIRONMENTAL EDUCATION**

### **Preamble**

The aim of this course is to provide the practical knowledge current scenario about our environment, issues in environmental management and importance of biodiversity and its conservation.

### **Course Outcomes (COs)**

On the successful completion of the course, student-teachers will be able to

CO1	recognise the basic principles and practices of the Environmental Education at secondary and higher secondary level.
CO2	categorise the importance of natural resources, role of individual and associated problems.
CO3	determine the role of ecosystem and biodiversity in Environmental Education.
CO4	experiment, inspect and examine the basic concepts of environmental pollution and preventing measures.
CO5	forecast the social issues and reflects acts applicable for preventing and control of pollution.

### **Unit – 1 : Introduction**

**(12 Hours)**

- 1.1 Definition and Need for the study.
- 1.2 Environmental Education – Basic principles.
- 1.3 Nature, Meaning and Scope of Environmental Education.
- 1.4 Aims and objectives of teaching Environmental Education.
- 1.5 Meaning and definition of Ecology –E.E and School Curriculum.

### **Unit – 2 : Natural Resources and Associated Problems**

**(12 Hours)**

- 2.1 Natural resources – definition, meaning, importance and types
- 2.2 Forest resources – importance, types, functions, uses of forest conservation – afforestation, causes of deforestation.
- 2.3 Water resources – Source – Types – Properties of water – Management of water resource.
- 2.4 Mineral resources – types – classification – environmental impact of mineral extraction and use. Energy resources – need, importance, sources and management. Land resources - Land resources in India – land degradation.
- 2.5 Role of an individual in conservation of natural resources.

**Unit – 3: Ecosystems and Biodiversity (12 Hours)**

- 3.1 Ecosystem - Meaning and definition.
- 3.2 Types of ecosystem – components of Ecosystem.
- 3.3 Energy flow in ecosystem - Food chains - Types - food web - Land of thermodynamics (I and II) - Ecological pyramids.
- 3.4 Biodiversity – meaning and definition - Hot Spots – Conservation.
- 3.5 India as a mega diversity nation.

**Unit – 4: Environmental Pollution (12 Hours)**

- 4.1 Pollution – definition and meaning
- 4.2 Degradable and non – degradable Pollutions – cause and prevention
- 4.3 Air pollution – definition, sources – effects on man, animals and plants - greenhouse effect - acid rain – primary and secondary pollution control measures.
- 4.4 Water pollution - definition – source - water born diseases – control measures – thermal pollution – sources – effects – control.
- 4.5 Land pollution- definition – source – effects – control measures – Noise pollution – definition – source, effects – recommendations of Noise Exposure Limit (W.H.O 1980)

**Unit – 5: Education for Sustainable Development (ESD) (12 Hours)**

- 5.1 Definition, Meaning and Scope of Sustainable Development.
- 5.2 Issues and challenges to Sustainable Development.
- 5.3 Concept of Education for Sustainable Development.
- 5.4 Significances of visiting to a local Environmental Assests – Wetland / Forest/ Grassland/ Hill/ Mountain.
- 5.5 Significance of visiting to a local polluted site – Air/ Water/ Solid Waste

**References**

- 1. Agarwal, K.C. (2001). *Environmental biology*. Bikaner: Nidi.
- 2. Arumugam, N. (1998). *Concepts of ecology*. Nagarcoil: Saras.
- 3. C.P.R. Environment Education Center. *Water - A book of facts and activities*. Madras: Aiyar Foundation
- 4. C.P.R. Environment Education Centre. *Noise pollution*. Madras: Aiyar Foundation.
- 5. Gleick, H.P. (1993). *Water in crisis*. Pacino Institute for studies in Developmental Environmental and Security. Stockholm Env. Institute: Oxford University Press.



6. Indian Institute of Ecology and Environment Occasional Monograph, Number: 21.
7. McKinney, M.L., & Schocb, R.M. (1996). Environmental some systems and solutions. Web enhanced Edition.
8. Ravikrishnan, A. (2005). *Environmental science and engineering*. Chennai: Sri Krishna.
9. Reddy, K.P., & Reddy, D.N. (2002). *Environment Education*. Hyderabad: Neelkamal.
10. Shrivastava, K.K. (2004). *Environment education*. New Delhi: Kaniska.

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	2		3				2	2	2
CO2	1			3	3	2			2	2
CO3	2	1	3	3		2		2		2
CO4	2			3		2			3	1
CO5	1			3	3	2				2

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## B4 EL PE - PHYSICAL EDUCATION

### Preamble

To provide adequate knowledge on communicable diseases, methods of organising tournaments, yogic practices and fundamental skills of select major games.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	gain the basic knowledge on Communicable diseases.
CO2	master in fundamental skills of select major games and organise the tournaments.
CO3	explain the test to assess the fitness components, Gain the knowledge about various National Sports Organizations and National Level Sports Awards.
CO4	explain the yogic therapy for various Health problems.
CO5	explain the yogic therapy for various Diseases.

### Unit – I Health Education

(12 Hours)

- 1.1 School Health services: Objectives - Role of health education in schools.
- 1.2 Common Communicable Diseases: Meaning - Causes, Symptoms & Preventions of: Malaria - Typhoid - Cholera - Diarrhea - Smallpox - Whooping Cough - “SARS Covid Pandemic”.
- 1.3 Food and Nutrition: Nutritional needs of body - under nutrition - malnutrition - calorie requirements for different age and gender - Ergogenic aids in Sports.
- 1.4 Common Sports injuries and their first-aid treatment: Sprain, Strain, Contusion, Fracture, Dislocation and Skin injuries
- 1.5 Therapeutic Approaches: PRICE therapy -Hydrotherapy: Cry therapy, Thermotherapy- Electrotherapy.

### Unit – II Methods, Organization & Administration in Physical Education

(12 Hours)

- 2.1 Lesson plan - Parts and preparation of general lesson.
- 2.2 Methods of teaching Physical Activities.
- 2.3 Organization of Intramural and Extramural Competitions, athletic meets.

- 2.4 Minor games & Major games (Team): Basic skills and rules of the following games:
  - a) Indigenous Games: Kabaddi (or) Kho-Kho
  - b) Ball Games: Volleyball (or) Ball Badminton
- 2.5 Test Administration: Assessment of Physical Fitness – AAHPERD Youth fitness test – AAHPERD Health Related Physical Fitness test - Cooper's Run and Walk test (12 minutes – Men, 8 Minutes – Women)

### **Unit – III Various Tournaments, Organizations and Awards (12 Hours)**

- 3.1 Modern Olympics
- 3.2 Asian games and Commonwealth games
- 3.3 Role of national Organizations viz. SAI, NSNIS, IOC, IOA, SDAT, SGFI and LNIPE in Promoting Physical Education and Sports in India.
- 3.4 Bharathiar Day Sports, Republic Day Sports
- 3.5 Awards: Arjuna, Dronacharya, and Rajiv Gandhi Khel Rathna award.

### **Unit – IV Yogic Therapy-I (12 Hours)**

Symptoms, causes and therapeutic values of yoga in the following diseases

- 4.1 Arthritis
- 4.2 Back pain
- 4.3 Constipation
- 4.4 Blood pressure
- 4.5 Stress and Asthma

### **Unit – V Yogic Therapy-II (12 Hours)**

Symptoms, causes and therapeutic values of yoga in the following diseases

- 5.1 Diabetes
- 5.2 Obesity
- 5.3 Insomnia & Covid - 19
- 5.4 Depression
- 5.5 Heart diseases & Healthy life

### **References**

- 1. Anderson Bob. (1997). *Stretch yourself for health and fitness*. USA: Shelfot.
- 2. Bucher, A. Charles. (1992). *Foundation of physical education and sports*. New Delhi: Janpath.

3. Dambrosia, D., & Robert, D. (1993). *Prevention and treatment of running injuries*. New Jersey: Slack Incorporated.
4. Eriksson, O. Bengt. (1990). *Sports medicines, health and medication*. Enfield: Guinness.
5. Gopi Krishna, K. (1993). *The purpose of yoga*. New Delhi: UBS.
6. Govindarajan. (2012), *Yoga tharum yoga muthiraigal*. Chennai: Usha Prasuram.
7. Hedge. (1997). *How to maintain good health*. New Delhi: UBPSD.
8. Kamlesh Sangral. (1997). *Methods in physical education*. Ludhiana: Parkash Brothers.
9. Kirtani Reema. (1996). *Physical fitness*. New Delhi: Khel sahitya sports Publication.
10. Lan, Suresh Kumar. (1998). *Physical education for handicapped children*. Khel Sahitya Kendra.
11. Mrunalini., & Sudhakar. (2008). *Yoga education*. Hyderabad: Neelkamal.
12. Mukesh Kumar. (1995). *Book of sports and games*. New Delhi: Sports Publications.
13. Noorris, M. Christopher. (1997). *Sports injuries*. London: Butterworth Heinemann Linacre.
14. Ramchandran, L & T. Dharmalingam. (1993). *Health education -A new approach*. New Delhi: Vikas.
15. Sharma, O.P. (2010). *Teaching and coaching physical education*. New Delhi: Khel Sahitya.
16. Sorenson Marc. (1995). *Mega health*. Bombay: Magna.
17. Venkatkrishnan. (2009). *Yoga for stress management*. New Delhi: Atlantic.

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1				3			3			
CO2	3									2
CO3	3							3		
CO4		3					3	2		
CO5		3					3	2		

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## **B4 EL EL - E-Learning Technology**

### **Preamble:**

To provide necessary knowledge on the fundamental ideas of e-learning technology and integrating the same in teaching learning process.

### **Course Outcomes (COs)**

On the successful completion of the course, student-teachers will be able to

CO1	understand evolution of e-learning technology, Models of E-learning and apply Open Educational Resources.
CO2	categorize Web 2.0 tools, Social Media, Mobile learning, Blended learning and appraise them at Secondary Education.
CO3	analyse Various Learning Management System and Content Management System and to compare different Content management systems.
CO4	examine MOODLE and to develop courseware by using MOODLE.
CO5	understand about the MOOC and to sketch future of e-learning technology.

### **Unit I - Fundamentals of E-Learning (12 Hours)**

- 1.1 Evolution of E-Learning: Meaning, Types, Significance, Strengths and Limitations
- 1.2 Elements and dimensions of E-Learning Technologies
- 1.3 Internet in Education, Audio and Video conferencing tools : Advantages & disadvantages, Modes of Learning
- 1.4 Models of E-Learning - Identifying and organizing E-Learning course content: Needs Analysis -Analyzing the learning outcome
- 1.5 Open Educational Resources: Concept, Meaning, Scope and Limitations.

### **Unit II - Tools of e-Learning (12 Hours)**

- 2.1 Web 2.0 Tools: Nature and Characteristics - Blogs and Wikis. Applications and their relevance for academic purposes
- 2.2 Social Media: Over View of Face book, Youtube, Twitter and WhatsApp: Uses, Opportunities and challenges at Secondary Level.
- 2.3 Mobile Learning: Needs, Scope and Characteristics, Opportunities and Challenges, Difference between E-Learning and Mobile learning.
- 2.4 Web-based Learning Objects: Simulations and Tutorials.

- 2.5 Blended Learning and Embedded E-Learning: Meaning and Scope, Application, Strengths and Limitations.

**Unit III - Learning Management Systems (12 Hours)**

- 3.1 Learning Platforms – Proprietary and Open Learning Management Systems: Purpose, Tools and Functions.
- 3.2 Content Management System: Purpose, Tools and Functions, Difference between LMS and CMS.
- 3.3 Open Source Content Management System : Introduction and applications of Joomla & WordPress
- 3.4 Google Class Room: Creation, Implementation and Features.
- 3.5 Mobile Apps : Introduction, Scope, Characteristics, Application, Strengths and Limitations

**Unit IV - MOODLE and Its Application (12 Hours)**

- 4.1 MOODLE: History and Principles of MOODLE – Prerequisites: Hardware and Software.
- 4.2 MOODLE: File Management – Overview of Courses, Users and Roles – Course Management, Course Categories, Creating Courses – User Management: User Profiles, Cohorts – Enrolment of Users in Courses.
- 4.3 Aligning the course objectives, Assessments and evaluation methods of Courseware in MOODLE
- 4.4 Process in Creation: Instructor led Courses and Self-Learning Courses in MOODLE
- 4.5 Implementation of various Evaluation Strategies of Courseware in MOODLE.

**Unit V- MOOC and Its Application (12 Hours)**

- 5.1 Massive Open Online Courses: Concept, Meaning, Features and functions of MOOCs platforms, Best MOOCs platforms: Coursera, EDX, Khan Academy, Udemy and Unacademy.
- 5.2 MOOC - Indian Initiatives : NPTEL, SWAYAM, e-PG Pathshala, IIT Spoken Tutorials - MOOC Technology - Open MOOC platform – Open edX, Course Builder - Create Instructor led courses, degree programs, and self paced courses
- 5.3 Current Technologies in E-Learning: Augmented Reality, Virtual Reality and Artificial Intelligence: Introduction and Application

5.4 Internet of Things, Cloud Computing: Introduction and Application.

5.5 Gaming Environments for Education: Range and Scope.

## References

1. Allan, Barbara. (2002). *E-learning and teaching in library and information services*. London: Facet.
2. Cole, Jason., & Foster, Helen. (2010). *Using moodle: Teaching with popular open source course management system*. USA: OReilly
3. Saha, Rajib., & Mete, Jayanta. (2017). *ICT in education: A 21st century phenomenon*. New Delhi: APH
4. Sharma, Anita. (2017). *Role of ict in education: Trends and approaches*. New Delhi: ABD.
5. Underwood Jean, D.M., & Farrington- Flint, Lee. (2015). *Learning and the e-generation*. West Sunsex: Wiley Blackwell.
6. Vanaja, M., Rajasekar, S., & Arulsamy, S. (2014). *Information & communication technology in education*. New Delhi: Neelkamal.

## Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	2			2					
CO2	2	3								
CO3	2	3								
CO4	2	2							3	
CO5	2	2			2					3

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## B4 EPC 4 - DEVELOPMENT OF INNER SELF AND PROFESSIONAL IDENTITY (DISPI)

### Preamble

The Course Development of Inner Self and Professional Identity (DISPI) is unique in its nature. It aims to develop the Inner Self (Psychological Self) of the trainees and to promote their Professional Identity through five different workshop activities.

### Course Outcomes (COs)

On the successful completion of the course, student-teachers will be able to

CO1	explain their Life stories, Dreams, Aspirations through various forms of self-expression and understand their own positive psychological attribute that facilitate learning.
CO2	analyse their own childhood and adolescent experiences, trainees modify their present behaviour.
CO3	synthesis and evaluate the case studies of different children who -where raised in different circumstances. Understand the harmful situation affect their sense of self and Identity formation.
CO4	develop school reflective journal by encouraging learner's originality and talents in creative writing, Drawing and painting etc.
CO5	desirable behavior to become change agent and capable of designing and leading change in School or Community.

### Workshop Activity - 1: Development of Inner Self (6 Hours)

- Personal narratives, Life stories, Dreams, Aspirations, concerns through varied forms of self-expression – Poetry, Humour, Creative movement, aesthetic representations.

### Workshop Activity - 2: Childhood and Adolescence Experiences (6 Hours)

- Revisiting one's childhood experiences – influences, limitations and potentials.
- Revisiting one's adolescence experiences – empathizing with other individuals.



**Workshop Activity – 3: Professional Identity - Classroom Issues (6 Hours)**

- Sharing Case studies, stories of different children /students who are raised in different circumstances and how this affected their sense of self and identity formation.

**Workshop Activity – 4: Developing Reflective Journals (6 Hours)**

- Exercise for developing reflective journals – Reviewing the previous year reflective journals in the college and schools.
- Feedback on previous year reflective journals.

**Workshop Activity – 5: Connecting – Self – Society: Social Interface (6 Hours)**

- Understanding social structures (stereotypes/ diversity/ gender) and role of the individual.
- Becoming the change agent – designing and leading change / social action
- Participate or lead in real life intervention within college / school / community

**References**

1. Arnold, C. (2020). *Learning from the unconscious: Psychoanalytic approach in educational psychology*. California: Confer Books.
2. Hopkins, D. (2020). *Educational and developmental psychology: A strategic approach* (First Edition). Boston: Clarye International.
3. National Council for Teacher Education. Curriculum Framework: Two-Year B.Ed. Programme. New Delhi: NCTE.
4. [www.ncte-india.org](http://www.ncte-india.org)

**Mapping of Course Outcomes (COs) with Programme Outcomes (POs)**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1										3
CO2						3				
CO3					3					
CO4								3		
CO5			3							

3 - High Correlation

2 - Moderate Correlation

1 - Low Correlation



*[Signature]*  
Principal  
Sri Ramakrishna Mission Vidyalaya  
College of Education (Autonomous)  
Coimbatore-641 020.

(ii) M.Ed. Programme

**SRI RAMAKRISHNA MISSION VIDYALAYA  
COLLEGE OF EDUCATION  
(AUTONOMOUS)  
Coimbatore - 641 020**



**SYLLABUS**

**Master of Education (M.Ed.)**

**2022-2023 Onwards**



  
Principal:   
Sri Ramakrishna Mission Vidyalaya  
College of Education (Autonomous)  
Coimbatore-641 020.



### Programme Outcomes of M.Ed., Programme

On the successful completion of the programme, prospective teacher educators will be able to

PO1	apply theories, principles and ideas of cognate disciplines like Philosophy, Sociology, Psychology and Technology in their teaching profession, and advances the capacities in teaching, research and extension work in the field of Education in general and Teacher Education in particular.
PO2	familiarize with the process of curriculum development and evaluation, and able to design, develop and integrate innovative methods, approaches, processes and practices in teaching learning process considering recent trends in Education.
PO3	acquire the strong foundation of research knowledge and skills to design and execute qualitative and quantitative research in the field of Education by exploring instructional and professional topics relevant to Education at different levels.
PO4	examine and apply different principles of Teacher Education, Educational Management and Administration and their effectiveness in management of School Education and Higher Education System.
PO5	critically examine and analyse current trends and issues in Teacher Education and apply their knowledge by demonstrating teacher leader competencies within the profession.
PO6	adapt and integrate contemporary ICT enabled Education Techniques and developing the educational technology tools used in curriculum transaction.
PO7	instill professional skills, administrative and managerial skills to work as master trainers in Teacher Education Colleges and Schools in one hand, and equip their Professional Competencies to qualify in competitive examinations on the other hand.
PO8	address the needs of diverse learners by enhancing curriculum, instruction and assessment strategies appropriate for students' cultural backgrounds and different learning needs with an eye on the policies and programmes of Inclusive Education.
PO9	exhibit the professional dispositions of effective teachers by engaging in research-based practice, reflective teaching practice, professional growth and development, and employing effective communication strategies with stakeholders.
PO10	develop social, emotional, spiritual and professional values that pave the way for nurturing an egalitarian society blended with tradition and modernity.
PO11	work professionally as teacher educators in all educational settings with lifelong learning adhering to ethical standards of teaching.



## **SEMESTER - I**

<b>Course Code</b>	<b>Course Title</b>
<b>M1 CC 01</b>	<b>Philosophical and Sociological Foundations of Education</b>
<b>M1 CC 02</b>	<b>Advanced Educational Psychology</b>
<b>M1 CC 03</b>	<b>Introduction to Research Methodology</b>

## **M1 CC 01 - PHILOSOPHICAL AND SOCIOLOGICAL FOUNDATION OF EDUCATION**

### **Preamble**

The aim of this course is to understand Philosophical issues in Education, the Implications of Indian and Western Thinkers, Educational Thoughts, Social Deviants, Social Thoughts, Social Agencies and their contributions to the Philosophical and Social Foundations of Education.

### **Course Outcomes (COs)**

On the successful completion of the course, prospective teacher educators will be able to

CO1	explicate the need, nature and function of philosophy of education in the Curriculum of Indian Education.
CO2	examine the educational thoughts and implications from Indian and Western perspectives, and establish the relevance of philosophical theories in modern Education.
CO3	examine the contemporary educational thoughts and values drawn from different disciplines cognate to Education.
CO4	analyze education from different sociological perspectives and theoretical frameworks, and review the seminal works in the Sociology of Education.
CO5	recognize and explain social agencies and their contributions to socialization.

### **Unit – 1: Philosophical Basis of Education (10 Hours)**

- 1.1 Education: Definition, Meaning and Functions.
- 1.2 Aim in Education: Individual, Social, Knowledge, Moral and Character Formation, Religious, Vocational.
- 1.3 Democratic and Totalitarian Aims in Education.
- 1.4 Philosophy and Education: Areas of Philosophy – Philosophies of Education– Curriculum and teaching.
- 1.5 Philosophies of Education: Values – Philosophy of Life – Structure of Society.

### **Unit – 2: Different Schools of Philosophy and Implications (14 Hours)**

- 2.1 Indian School of Thought: Vedic and Upanishadic thought – Buddhist thought– Jainism.
- 2.2 Western school of thought: Idealism – Naturalism – Pragmatism – Existentialism – Realism.
- 2.3 Philosophies of Indian Educational Thinkers: Tagore – Vivekananda – Gandhi– Aurobindo – Jiddu Krishnamurthy.

- 2.4 Philosophies of Western Thinkers: Russell – Paulo Freire – Ivan D Illich – Dewey.
- 2.5. Contemporary Philosophy and Education: Marxism – Progressive Education – Secularism – Positivism – Dialectic Materialism.

**Unit – 3: Current Educational Thought (12 Hours)**

- 3.1 Population Education – Meaning – Objectives – Problems – Programmes.
- 3.2 Environmental Education - Meaning – Objectives – Schemes in India.
- 3.3 Value Education - Meaning – Objectives – Value Oriented Curriculum – Programmes.
- 3.4 Human Rights Education - Meaning – Objectives – Laws (Right to Education Act) – Programmes.
- 3.5 Globalization in Education - Meaning – Objectives – Education for 21st Century- Education for National Integration and International Understanding.

**Unit – 4: Sociology and Education (12 Hours)**

- 4.1 Nature, meaning and scope of Educational Sociology.
- 4.2 Culture: Meaning, Significance, features of Indian culture - Conservation, Development and Transmission of Culture.
- 4.3 Problems in maintaining discipline in schools and colleges – feasible solutions.
- 4.4 Social Deviants – Environmental (Physical, Natural, Social and Economical) Influences on Personality Development.
- 4.5. Social Change through Education, Equalization of Educational Opportunity – Social Stratification and Mobility and Social Determinants of Educability, Social control.

**Unit – 5: Agencies and their Contributions for Socialization (12 Hours)**

- 5.1 Family, School, Religion, Community and Media.
- 5.2 Functions – Traditional Values and Norms – Evolution of Modern Values and Norms – Their Impact on Education.
- 5.3 Role of Community Service, Need for Integrated Rural Development Schemes.
- 5.4 Contributions of Education to Economic Growth – Technological Change Industrialization and Modernization.
- 5.5 National Skill Development Corporation Recognized schemes – Community college, DDU - KAUSHAL Kendra scheme.

**References**

- 1. Arulsamy, S. (2011). *Philosophical & sociological perspective on education*. Hyderabad: Neelkamal.
- 2. Catherine, J. (2011). *Environmental education*. Hyderabad: Neelkamal.
- 3. Dhankar, N. (2010). *Value education*. New Delhi: APH.
- 4. Gogate, S.B. (2011). *Human value and professional ethics*. Coimbatore: TBH.

5. Nagarajan, K. (2010). *Environmental education*. Chennai: Ram.
6. Pathak, R.P. (2010). *Education in modern India: Global trends and development*. New Delhi: Atlantic.
7. Seetharamu, A.S. (2010). *Philosophies of education*. New Delhi: APH.
8. Singaravelu, G. (2010). *Education in the emerging indian society*. Hyderabad: Neelkamal.
9. Singh, M. (2010). *Secular and global, moral and ethical values*. New Delhi: International OpenInstitute of World Religion.
10. William Dharmaraja. (2010). *Education in emerging Indian society*. New Delhi: APH.

**Mapping of Course Outcomes (COs) with Programme Outcomes (POs)**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2			2			2			
CO2	3	3								2	
CO3	3		2		2		2			2	
CO4	3			2				2			
CO5	3		2			2				2	

**3 - High Correlation****2 - Moderate Correlation****1 - Low Correlation**

## M1 CC 02 - ADVANCED EDUCATIONAL PSYCHOLOGY

### Preamble

The aim of this course is three folded. First to explore what the field of Advanced Educational Psychology is all about and how it can help them and positively contribute to learner's development. Second to get acquainted with the significance of learning, motivation, individual differences in intelligence, multiple intelligences and Emotional intelligence. Third provide knowledge about Personality, Psycho-social-educational adjustment and to develop an interest in psychological research.

### Course Outcomes (COs)

On the successful completion of the course, prospective teacher educators will be able to

CO1	remember Educational behaviour. Evaluate the learning capabilities and competencies of the learners and apply blended teaching-learning strategies to enhance the quality as well as quantity of learning.
CO2	apply the key elements of motivation, achievement motivation and develop learner involvement, learner recognition programmes to promote growth needs among learners.
CO3	remember the factors that influence individual differences. Analyse factors of Intelligence, Creativity, Multiple intelligences and Emotional intelligences and apply it in the process of learn to teach.
CO4	examine and apply different theories of personality, and assessment methods to promote integrated personality among trainees.
CO5	remember several psychological tests (Paper/pencil, Performance, and e-test) and analyse challenges involved in administering it to individuals and group. Further identify priority areas of research in Educational Psychology.

### Unit – 1: Cognitive Processes and Learning Theories (12 Hours)

- 1.1 Advanced Educational Psychology – Meaning, Scope and Methods: Ethnographic, Correlational and Experimental studies
- 1.2 Piaget's Cognitive Development theory and its educational implications.
- 1.3 Educational implications of Thorndike's Laws of learning, Pavlov's Classical and Skinner's Operant conditioning.
- 1.4 Theory of Insightful learning: Gestalt- Kohler's concept of insight –Guthrie's theory of Contiguous conditioning.
- 1.5 Hull's Systematic Behaviour theory – Tolman's theory of Learning- Transfer of training.



**Unit – 2: Motivation, Teaching and Learning (12 Hours)**

- 2.1 Importance of Motivation – Learning and motivation (Rewards, Value of incentives and punishment)
- 2.2 Goal setting, Planning and self-Monitoring – Expectations – Students Expectations – Teachers Expectations.
- 2.3 Theories of motivation: Theory of instincts – Hull's Drive reduction theory-.
- 2.4 Carl Roger's fulfillment model of motivation – Mc Clelland's theory of achievement need.
- 2.5 Maslow's need hierarch theory – Perspectives on motivation- Behavioural, Humanistic and Cognitive perspectives.

**Unit – 3: Individual Variations – Intelligence and Creativity (12 Hours)**

- 3.1 Natural and Artificial intelligence – Role of ICT in promoting Intelligence
- 3.2 Dimensions of intelligence – Its multi - dimensional characteristics
- 3.3 Emotional intelligence – concept and dimensions – Gardner's theory of Multiple intelligences and its educational implications.
- 3.4 Nature and characteristics of Creativity – Identification of creative potential.
- 3.5 Theories of Creativity: Taylor's Level Theory of Creativity- Arieti's Theory of Creativity.

**Unit – 4: Personality and Psycho Social Adjustment (12 Hours)**

- 4.1 Salient features and characteristics of personality
- 4.2 Theories of personality – Type approach – Trait Approach – Type Cum Trait Approach.
- 4.3 Psychoanalytical Approach – Humanistic Approach – Learning Theories of Personality.
- 4.4 Assessment of Personality – subjective, objective and projective ways of assessing Personality.
- 4.5 Psycho- social adjustment – meaning and nature – adjustment mechanisms

**Unit - 5: Psychological Measurement and Research in Educational Psychology (12 Hours)**

- 5.1 Types of psychological tests – Factors affecting psychological testing and its results.
- 5.2 Aptitude and Achievement tests: Types of Standardized tests – Standardized test for teacher candidates
- 5.3 Psycho diagnosis – limitations of diagnosis – common diagnostic classification system in Education.
- 5.4 Planning matrix for Behavioural research – Importance of longitudinal and cross-sectional studies in Behavioural Science.
- 5.5 Priority areas of research in Educational Psychology: Adolescence problems – Behavioural approaches to learning, Social Cognitive approaches to learning, Emotional intelligence and Multiple Intelligences.

## References

1. Airasian, P.W., & Russell, M.K. (2008). *Classroom assessment*. New York: McGraw Hill.
2. Aruna Mohan, G. (2007). *Educational psychology*. Hyderabad: Neelkamal.
3. Aruna Mohan, G. (2009). *Psychological foundations of education*. Hyderabad: Neelkamal.
4. Baddeley, A.D. (2007). *Working memory - Thought and action*. New York: Oxford University Press.
5. Bank, J. A. (2008). *Introduction to multicultural education*. (4th ed.,) Boston: Allyn & Bacon.
6. Bouglas, O.B., & Holland, B.F. (1997). *Fundamentals of educational psychology*. New York: The Macmillan Co.
7. Clark, B. (2008). *Growing up gifted*. (7th ed.) Upper Saddle River, NJ: Prentice Hall.
8. Comer, J.P. (2004). *Leave no child behind*. New Haven, CT: Yale University Press.
9. Crow, L.D. & Crow, A. (1993). *Educational psychology*. New Delhi: Eurasia Publishing Hour.
10. Garrett, H.E., Shoneck, M.R. (1993). *Psychological tests - Methods and results*. New York: Harper & Brothers.
11. Gilford, J.P. (1999). *The nature of human intelligence*. New York: Mc Graw –Hill.
12. Hick, P., & Thomas, G. (2009). *Inclusion and diversity in education*. Thousand Oaks. CA: Sage.
13. Hult, R.E. (2008). *Kohlberg's stages of moral development*. In N.J Salkind (Ed.) *Encyclopedia of educational psychology*. Thousand Oaks, CA: Sage.
14. Johnson, D.W., & Johnson, R.T. (1994). *Learning together and alone*. (4th ed.). Boston: Allyn & Bacon.
15. Kolencik, P.L. (2019). *Encouraging meta cognition: Supporting Learners through Metacognitive teaching*. (First Edition). NJ: Peter Lang Inc.
16. Panda, B.N. (2004). *Advanced educational psychology*. New Delhi: Discovery.
17. Skinner, C.E. (1998). *Essential of educational psychology*. New York: Prentice Hall.
18. Smith, E.E., & Kosslya. S.M. (2007). *Cognitive psychology –Mind and brain*. New Delhi: Prentice Hall.
19. Terry, W.S. (2006). *Learning and memory*. (3rd ed.). Boston: Allyn & Bacon.
20. Valley, F.P. (1975). *Motivation - Theories and issues*. California: Brooks /Cole Monterey.
21. Weber, E. (2005). *MI strategies in the classroom and beyond*. Boston: Allyn & Bacon.
22. Wilkinson, B. (2021). *Educational psychology for learners: Connecting theory, research, and application*. (2nd Edition). Bosten. Kendall Hunt.

## Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3										
CO2	3										
CO3								3			
CO4											3
CO5			3								

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## M1 CC 03 - INTRODUCTION TO RESEARCH METHODOLOGY

### Preamble

The aim of this course is to make students comprehend with the different types of research; methodologies adopted in educational research and enhance their research attitude.

### Course Outcomes (COs)

On the successful completion of the course, prospective teacher educators will be able to

CO1	discuss research, its types, functions and the qualities of a research scholar and supervisor.
CO2	compare the different methodologies adopted in research.
CO3	discuss and apply with the various components needed to do research.
CO4	recommend the procedures followed in construction of tools and use them for data collection.
CO5	apply appropriate tools and techniques for data collection.

### Unit – 1: Introduction to basic ideas in Educational Research (8 Hours)

- 1.1 Research – Meaning, Characteristics, Need for Research, Challenges in Conducting Research
- 1.2 Qualities of a Research Scholar, Qualities of a Research Supervisor
- 1.3 Ethics in doing research – Plagiarism and its consequences
- 1.4 Uses of ICT in research – Need and importance
- 1.5 Research Design – Meaning, Characteristics. Concept of Research Proposal. Concept of Research Report. Difference between Research Proposal and Research report.

### Unit – 2: Classification of Research (15 Hours)

- 2.1 Classification Based on Data Type – Quantitative, Qualitative
- 2.2 Classification Based on Purpose – Pure or Fundamental, Applied, Action, Evaluation
- 2.3 Classification based on Method – I: Historical, Philosophical, Diagnostic studies, Experimental Studies, Ex-Post Facto Research, Case Study
- 2.4 Classification based on Method – II: Descriptive Studies – Surveys (longitudinal, cross-sectional) – Interrelationships (Causal-Comparative Studies, Correlation Studies)
- 2.5 Classification based on Method – III: Developmental Studies (Growth Studies and Trend Studies)

### Unit – 3: Components of a Research – (Hypothesis, Variables, Sample) (12 Hours)

- 3.1 Related Literature – Importance, Sources (Information Resource Centre, e-resources), Steps in Literature Review.

- 3.2 Identification of the Research Problem and framing objectives.
- 3.3 Hypothesis – Meaning, Characteristics, Types, Formulation of Hypothesis.
- 3.4 Variables – Meaning, Types, Method of selecting the variables
- 3.5 Sample – Meaning, techniques in selecting the sample. Difference between population and sample.

#### **Unit – 4: Tools for Research (14 Hours)**

- 4.1 Tools – Meaning, Qualities of a good tool, standardised and non-standardised tools
- 4.2 Tools for Quantitative data – types, criteria in selection
- 4.3 Tools for Qualitative Data - types, criteria in selection
- 4.4 Construction of a tool – Item selection, establishing norms, tryout, pilot study, item analysis
- 4.5 Standardisation of a tool : Reliability; Validity – Meaning, Importance and types

#### **Unit – 5: Data gathering and Organizing (11 Hours)**

- 5.1 Scales of measurement: Nominal, Ordinal, Interval and Ratio – its application
- 5.2 Objectivity in data collection; Types of data – Quantitative, Qualitative
- 5.3 Classification, Organization and Tabulation of data. Frequency distribution
- 5.4 Presentation and Interpretation of data using diagrams and graphs.
- 5.5 Selection of statistical techniques for analyzing data – Parametric, Non- Parametric and Correlation

#### **References**

- 1. Best, J.W. (2010). *Research in education*. (10th ed). New Delhi: Prentice-Hall.
- 2. Carter, V.Good. (2006). *How to do education research in?* New Delhi: Cosmo.
- 3. Cohen, L., Manion, L., & Morrison, K. (2001). *Research methods in education* (5th ed.). New York: Routledge Falmer.
- 4. Creswell. (2012). *Educational research – Planning, conducting and evaluating quantitative and qualitative research*. Coimbatore: TBH.
- 5. Dipti, P.B. (2013). *Research methodology*. New Delhi: APH.
- 6. Guthrie, G. (2010). *Basic research methods*. New Delhi: Sage.
- 7. *Hand book on educational research*. (1999). New Delhi: NCTE.
- 8. Khanzode, V.V. (2014). *Research methodology techniques & trends*. New Delhi: APH.
- 9. Koul, L. (2009). *Methodology of educational research*. New Delhi: Vikas.
- 10. McBurney, D.H. (2006). *Research methods*. Bangalore: Thomson Business Information India.
- 11. Mertler, C.A., & Charles, C.M. (2012). *Introduction to educational research*. New Delhi: Dorling Kindersley.
- 12. Nagarajan, K., Srinivasan R., & Mary, V. (2003). *Research methods in education*. Chennai: Ram.

13. Panneerselvam, R. (2011), *Research methodology*. New Delhi: Prentice-Hall.
14. Radha Mohan. (2013). *Research methods in education*. Hyderabad: Neelkamal.
15. Rajammal, P., & Devadass. (1989). *A handbook of methodology of research*. Coimbatore: SRKV.
16. Rajeev Rajan. (2011). *Research in educational and behavioural sciences*. New Delhi: Anmol.
17. Ranjit Kumar. (2011). *Research methodology*. New Dehi: Sage.
18. Sandeep Chauhan. (2012). *Research methodology in education*. New Delhi: Dorling Kindersley.
19. Sharma, R.A. (2006). *Advanced statistics in education and psychology*. Meerut: Surya.
20. Srinivasan, G. (2010). *Operational research: Principles and applications*. New Delhi: Prentice Hall.

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3		2			3	3		2		2
CO2	2		3	3	3	2	2		2		3
CO3	2		3			2	2		2		2
CO4	3		2			3	3		2		2
CO5	3		2			3	2		3		3

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## **SEMESTER - II**

<b>Course Code</b>	<b>Course Title</b>
<b>M2 CC 04</b>	<b>Teacher Education in India</b>
<b>M2 CC 05</b>	<b>Educational Research and Application of Advanced Statistics</b>
<b>M2 CC 06</b>	<b>Educational Technology</b>

## M2 CC 04 - TEACHER EDUCATION IN INDIA

### Preamble

The aim of this course is to understand Teacher Education, Curriculum Transaction, National Level Agencies, Innovations and develop research knowledge in Teacher Education.

### Course Outcomes (COs)

On the successful completion of the course, prospective teacher educators will be able to

CO1	understand the context of Teacher Education at various levels.
CO2	state the different curriculum strategies and techniques for curriculum evaluation.
CO3	differentiate the role of state and national level agencies in Teacher Education
CO4	develop criteria for the selection of best innovations in teacher education.
CO5	analyses the existing research in teacher education and write research proposal and research reports.

### Unit – 1: Introduction of Teacher Education (10 Hours)

- 1.1 Meaning and concept of Teacher Education - objectives of Teacher Education.
- 1.2 Evolution and Development of Teacher Education in India.
- 1.3 Approaches to Teacher Education – Consecutive versus Integrated, Face to Face versus Distance Mode- Pre-service versus In-service.
- 1.4 Different levels of Teacher Education Programmes – Pre-primary, Primary, Secondary and Higher Secondary levels.
- 1.5 Different specialisations in Teacher education programmes: Teacher Educators, Special Educators, Physical Educators, Technical teachers.

### Unit – 2: Curriculum and Transaction in Teacher Education (14 Hours)

- 2.1 Teacher Education curriculum at different stages – Pre-primary, Primary, Secondary and Higher Secondary levels.
- 2.2 Need for continuous evaluation of teacher education curriculum.
- 2.3 Strategies of curriculum transaction – theory courses, content-cum methodology courses, Practice teaching and Internship.
- 2.4 Techniques for Higher learning: Seminar – Conference – Symposium - Workshop and Panel discussion.
- 2.5 Professional Development of Teacher Educators – Self improvement, In-service training, Study visits, Club activities, participation in seminar, Research Publication.

**Unit – 3: Institution and Agencies of Teacher Education (12 Hours)**

- 3.1 National Level Institutions: Regional institutions – training institutes for special fields – Language institutes – CASE.
- 3.2 State Level Institutions: University Departments of teacher education – Institutes of Teacher Education – DIET.
- 3.3 National Level agencies and Teacher Education: NCTE, NCERT, UGC, RCI, AICTE, NAAC, CABE.
- 3.4 National Policies for Teacher Education and Need Projection in Teacher Preparation in India.
- 3.5 Specific programmes of Teacher Preparation – Art Education, Language Education, Physical Education, Technical Education and Special Education.

**Unit – 4: Innovations in Teacher Preparation (12 Hours)**

- 4.1 Teacher education through open and distance learning.
- 4.2 Media and Technology in teacher preparation.
- 4.3 Quality assurance and accreditation in teacher education.
- 4.4 Evaluation techniques, Feed-back devices and simulated teaching.
- 4.5 Centrally Sponsored schemes to Teacher Education - Samagra Shiksha - RUSA (Rashtriya Uchchatar Shiksha Abhiyan).

**Unit – 5: Research in Teacher Education (12 Hours)**

- 5.1 Need for research in Teacher Education.
- 5.2 Trends in Teacher Education Research - Priority areas of Teacher Education.
- 5.3 Meta analysis of Research Studies in Teacher Education.
- 5.4 Preparation of research proposal for funding.
- 5.5 Role of National and State level organisations funding for Teacher Education Research.

**Essential Readings**

- 1. Report of Education Commission. (1964-66)
- 2. Report of National Commission on Teachers (1983-85)
- 3. National Policy of Education 1986/1992
- 4. NCTE (1998) Perspectives in Teacher Education
- 5. UGC XII Plan Guidelines.

**References**

- 1. Aggarwal, J.C (1983). *Landmarks in the history of modern Indian education*. New Delhi: Vikas.
- 2. Mohanty, J. (1988). *Modern trends in Indian education*. New Delhi: Deep & Deep.
- 3. Mukhopadhyah, M.(1990). *Educational technology: Challenging issues*. New Delhi: Arya.



4. National Council for Teacher Education. (2010). *National curriculum framework for teacher education*. New Delhi: NCTE.
5. Ram, S. (2004). *Current issues in teacher education*. New Delhi: Sarup and sons.
6. Saxena, N.R., Mishra, B.K., & Mohanty, R.K. (2004). *Teacher education*. Meerut: Surya.
7. Shah, D.B. (1991). *Educational technology for developing teaching competence*. New Delhi: NCERT.
8. Sharma, M.L. (1995). *Indian education at cross roads*. New Delhi: Arya.
9. Shukla, P.D. (1990). *The new education policy in India*. Delhi: Sterling.

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2			2		3				
CO2			3			1		2			
CO3	3			1			3				
CO4		2		1	2				1	2	
CO5	3	2	3						3	2	

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## **M2 CC 05: EDUCATIONAL RESEARCH AND APPLICATIONS OF ADVANCED STATISTICS**

### **Preamble**

The aim of this course is to understand the process of acquiring knowledge and conducting research in the field of Education and allied disciplines.

### **Course Outcomes (COs)**

On the successful completion of the course, prospective teacher educators will be able to

CO1	analyse various types of data and their purpose in research.
CO2	develop skills in employing various statistical techniques and their applications.
CO3	identify the steps of educational research and be aware of different types of errors caused during research.
CO4	get familiarized with the procedure of testing the hypotheses and infer the result.
CO5	interpret the results of their research investigation and prepare the research report.

### **Unit – 1: Analysis of Quantitative Data (Descriptive Statistics) (10 Hours)**

- 1.1 Descriptive and Inferential Statistics - Meaning, Importance and Usage
- 1.2 Measures of Central Tendency – Mean, Median, Mode – Calculation
- 1.3 Measures of Variability – Range, Quartile Deviation, Standard Deviation - Calculation
- 1.4 Interpretation of results based on central value and variability
- 1.5 Applications of Normal Distribution – Measures of relative standing.

### **Unit – 2: Analysis of Quantitative Data (Inferential Statistics – I) (14 Hours)**

- 2.1 Parametric and Non-Parametric statistics – Meaning, importance and application.
- 2.2 Concept of Standard Error, Sampling Distribution and Sampling Error
- 2.3 Students' t-test – Correlated and Uncorrelated Groups - Calculation (Large and Smallgroup)
- 2.4 Concept of ANOVA – Calculation of one-way ANOVA (F-test)
- 2.5 Hypothesis Testing - Interpretation of results of t-test and F-test; Type-I Error, Type-II Error; one-tailed and two-tailed tests

### **Unit – 3: Analysis of Quantitative Data (Inferential Statistics – II) (14 Hours)**

- 3.1 Types of Non-Parametric tests.
- 3.2 Chi-Square test and its application – Goodness of fit.
- 3.3 Sign test, Median test, Mann-whitney U test – Meaning and its application

3.4 Correlation – Meaning, Types and Interpretation

3.5 Hypothesis Testing - Interpretation of results of Non-Parametric tests.

**Unit – 4: Analysis of Qualitative Data (12 Hours)**

4.1 Qualitative analysis – Meaning, Importance, Usage – Difference between Qualitative and Quantitative data.

4.2 Data Collection, Validity of data, Coding of data.

4.3 Analysis of Qualitative data – Steps and Methods

4.4 Interpretation of Results of Qualitative data

4.5 Role of Computers in Analysing Qualitative data

**Unit – 5: Research Report Preparation (10 Hours)**

5.1 Important components of Research Reporting - Preparation of report.

5.2 Presentation of tables and figures in the report – Importance of Scale in presenting figures.

5.3 Interpretation and presentation of research findings. Presentation of reference materials, bibliography (APA, MLA, etc.), appendices

5.4 Preparation of Research Abstracts and Dissemination of Research Reports.

5.5 Evaluation of Research Reports and Identification of Journals for publication – Impact factor and H-index.

**References**

1. Aggarwal, Y.P. (2004). *Statistical methods concepts, application and computation*. New Delhi: Sterling.
2. Almack, J.C. (2006). *Research and thesis writing*. New Delhi: Cosmo.
3. Arora, P.N., & Arora, S. (2012). *Statistics for management*. Coimbatore: TBH.
4. Bhandarkar, K.M. (2007). *Statistics in education*. Hyderabad: Neelkamal.
5. Carlberg, C. (2012). *Statistical analysis: Microsoft excel 2010*. New Delhi: Dorling Kindersley.
6. Garret, H.E., & Wood Worth, R.S. (2005). *Statistics in psychology and education*. New Delhi: Paragon International.
7. Gupta, C.B., & Gupta, V. (2010). *An introduction to statistical methods*. New Delhi: Vikas.
8. Kothari, C.R. (1998). *Qualitative techniques*. New Delhi: Vikas.
9. Kothari, C.R. (2007). *Research methodology methods and techniques*. New Delhi: New Age International.
10. Lichtman, & Marilyn. (2011). *Understanding and evaluating qualitative educational research*. New Delhi: Sage.
11. Mangal, S.K. (2007). *Statistics in psychology and education*. New Delhi: Prentice Hall.

12. Neuman, W.L. (1997). *Social research methods qualitative and quantitative approaches*. London: Allyn and Bacon.
13. Sharma, R.N. (2003). *Statistical techniques in educational research*. New Delhi: Surjeet.
14. Singh, Y.K., & Bajpai R.S (2013). *Research methodology data presentation*. New Delhi: APH.
15. Vijaya Krishnan. (2011). *Statistics for beginners*. New Delhi: Atlantic.

**Mapping of Course Outcomes (COs) with Programme Outcomes (POs)**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3		2			1	1				2
CO2			3			2	1		1		1
CO3	2		3						2		1
CO4	2	3							2		1
CO5	2		3						3		2

**3 - High Correlation****2 - Moderate Correlation****1 - Low Correlation**

## M2 CC 06 - EDUCATIONAL TECHNOLOGY

### Preamble

The aim of this course is to enhance the knowledge and professional competency of prospective teachers in integrating Information and Communication Technologies in education.

### Course Outcomes (COs)

On the successful completion of the course, prospective teacher educators will be able to

CO1	implement the principles, types and approaches of educational technology in teaching learning process.
CO2	construct multi – media Video content using educational technology aids.
CO3	sequence and apply the systems approach and its application.
CO4	make and familiarize to develop various self learning materials.
CO5	categorise and Evaluate the significant impact of ICT and its contribution to education.

### Unit - 1: Principles of Educational Technology (10 Hours)

- 1.1. Educational Technology - Meaning, Definition, Need, Objectives, Scope and Limitations.
- 1.2 Approaches of Educational Technology- Hardware, Software and Instructional Designs.
- 1.3. Types of Educational Technology - Technology of Education and Technology in Education.
- 1.4 Development of Educational Technology - Traditional and Modern Educational Technology.
- 1.5 Present status of Educational Technology in education - Role of the teacher in the Context of Educational Technology.

### Unit - 2: Multi-Media Approaches in Education (12 Hours)

- 2.1 Multi-Media - meaning- concept -characteristics - features- components- application.
- 2.2 Media selection and integration process- need of media selection- factors affecting media selection- procedure for selecting media
- 2.3 Multimedia packages-steps for using multimedia - developing multimedia instructional strategy.
- 2.4 Audio and Video technology in education- Preparation of video lessons- Instructional Television (ITV) -Tele tutoring.

2.5 Mass Media in Education - Limitations of Mass Media - Present Status of Mass Media in Education.

**Unit - 3: Systems Approach (8 Hours)**

- 3.1 Systems Approach : Definition, Meaning, Scope and Procedure.
- 3.2 Components of an instructional system.
- 3.3 Steps in Instructional Design - Advantages – Flow diagram for designing a system.
- 3.4 Application of a Systems Approach for Educational Improvement
- 3.5 Characteristics of systems approach: Planning, application and Evaluation

**Unit - 4: Self Learning Materials (13 Hours)**

- 4.1 Self-Learning Materials- Nature, Characteristics of SLM - Development of Self Learning Print Materials.
- 4.2 Designing instructional system – individual mode, small group mode and large groupmode.
- 4.3 Learner controlled instructions- Computer Assisted Instruction (CAI) - Computer Based Training (CBT) - Computer Aided Learning (CAL) – Computer Assisted Language Learning (CALL) - Computer Managed Learning (CML) -Personalized System of Instruction (PSI).
- 4.4 Self learning module-Modular Approach in Teaching Learning.
- 4.5 Resource centres for Educational technology: CIET, UGC, IGNOU, AVRC, EMRC and NIST- their activity for the improvement for learning

**Unit - 5: ICT and its Contribution to Education (15 Hours)**

- 4.1 Internet - E-Mail - Search Engines- Search Techniques – Introduction to FTP (File Transfer Protocol)- Tele-Conferencing
- 4.2 E - Learning - Basic Concepts - Meaning, Scope and Limitations of E - Learning -B Learning- M learning- On Line Testing - Advantages and Limitations of on-line Testing
- 4.3 Blogs - Discussion Forums, Social Networks - Web Browsers - An Overview of E - Learning Software's - Web Based Training (WBT).
- 4.4 Mark up Languages - Types of Mark-Up Languages – HTML - Introduction - Creating Marquees, Tables, Titles, and backgrounds using Tags.
- 4.5 Cyber Values - Computer Viruses- Awareness over Cyber Security, Cyber Law and Cyber Crimes.

**References**

- 1. Aggarwal, J .C. (1995). *Essentials of educational technology*. New Delhi:Vikas.
- 2. Das ,B. C. (2005). *Educational technology*. New Delhi: Sterling.
- 3. Hasan,S.M. (2004). *Encyclopedia of educational technology*. New Delhi: APH.

4. Kulkarni, S. S. (1996). *Introduction to educational technology*. Chennai : Oxford University Press.
5. Mangal, S.K. (2005). *Educational technology*. Ludhiana: Tandon.
6. Mangal, S.K., & Mangal, U. (2010). *Essentials of educational technology*. New Delhi: PHI.
7. Pandey, S. K., & Sharma, R. S. (2004). *Encyclopedia of modern techniques of teaching*. New Delhi: Commonwealth.
8. Rawat, S. C. (2005). *Essentials of educational technology*. Meerut: R Lai.
9. Rohan, S. P. (2002). *Educational technology*. New Delhi : Indian.
10. Sampath, K., Panneerselvam, A., & Santhanam, S .(2008). *Educational technology basics and applications*. Chennai: Shantha.
11. Sharma, R. A. (2005). *Essentials of educational technology and management*. Meerut: R Lai.
12. Sharma, R.N., & Chandra, S.S. (2007). *Advanced educational technology*. New Delhi: Atlantic.
13. Singh, Y. P. (2005). *Instructional technology in education*. New Delhi: APH.
14. Siva Kumar F. (2001). *Information processing models of teaching theory and research*. Hyderabad: Neelkamal.
15. Venkaiah, N. (2004). *Educational technology*. New Delhi: APH.

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	1			2	3						
CO2		2				3					1
CO3	2	3			1						
CO4		2	1			3					
CO5	1			3		2					

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## **SEMESTER - III**

<b>Course Code</b>	<b>Course Title</b>
<b>M3 CC 07</b>	<b>Curriculum Development and Evaluation</b>
<b>M3 CC 08</b>	<b>Education for Differently-Abled</b>
<b>M3 CC 09</b>	<b>Value Education</b>



## M3 CC 07: CURRICULUM DEVELOPMENT AND EVALUATION

### Preamble

The aim of this course is to enhance student teachers' knowledge of principles in curriculum construction, current patterns of curriculum organization and models of curriculum evaluation, and to acquaint them with the researches in the area of teacher education.

### Course Outcomes (COs)

On the successful completion of the course, prospective teacher educators will be able to

CO1	explain the need, nature and importance of curriculum development.
CO2	enumerate the models of curriculum development.
CO3	compare the curriculum transaction at state and national levels.
CO4	analyse the recent trends in curriculum development.
CO5	describe the curriculum evaluation process and reforms.

### Unit – 1: Concept of Curriculum

(10 Hours)

- 1.1 Curriculum: Definitions, Meaning and scope.
- 1.2 Curriculum and syllabus: relationship and difference.
- 1.3 Educational objectives and curriculum planning.
- 1.4 Need for curriculum development.
- 1.5 Post-independence efforts to curriculum reconstruction in India.

### Unit – 2: Process of Curriculum Development

(14 Hours)

- 2.1 Approaches to curriculum: Subject centered – Broad field – Social problem – learner centred approaches.
- 2.2 Models of curriculum development: Tylor model – Taba model – Saylor and Alexander model – Humkins model – Miller and seller model – open classroom model – Roger's Model.
- 2.3 Tasks in curriculum development: Need assessment – formulation of objectives – selection of content – selection of learning experience – evaluation.
- 2.4 Role of teacher in curriculum development.
- 2.5 Emerging areas to be included in curriculum: Multicultural education – special education – environmental education – health education – population education – value education – disaster management – Human Rights Education.

### Unit – 3: Curriculum Transaction

(12 Hours)

- 3.1 Meaning and Definition of curriculum transaction.

- 3.2 Strategies for curriculum Transaction: Organisation for instruction – Distance learning model – Resource for curriculum transaction.
- 3.3 Role of Board of Education in Transaction of curriculum: State Board of education – CBSE – ICSE – University Board of Studies for higher level.
- 3.4 Concept of management of Teaching: Davies and Thomas concept of classroom management – Robert Glaser's Basic Model of Teaching.
- 3.5 Basis of Transaction of curriculum: Philosophy – Needs of society – Nature of course – Psychology of the students – Significant recommendations of national commissions and committees of education.

#### **Unit – 4: Trends in Curriculum Development (12 Hours)**

- 4.1 Curricula in the Twenty first century: Liberal education – Global education – interdisciplinary content – secularism and education.
- 4.2 Possible future trends in curriculum: Demographic changes – Technological innovations – social innovations – cultural diffusion.
- 4.3 Adapted curriculum for special need students: Materials – instruction – evaluation.
- 4.4 Need for research in curriculum change and development: National Curriculum Framework (NCF) 2010
- 4.5. E – Content: Meaning, Significance, Developing Procedure.

#### **Unit – 5: Curriculum Evaluation (12 Hours)**

- 5.1 Concept, need and importance of continuous curriculum evaluation and development
- 5.2 Aspects of curriculum evaluation: Pre-test – Post-test – Norm referred – Criterionreferred – Formative – Summative.
- 5.3 Types of curriculum evaluation: Content evaluation – input evaluation – process evaluation – product evaluation.
- 5.4 Models of curriculum evaluation: Taylerion model – Stake's model – Stufflebeam's model.
- 5.5 Challenges and Opportunities in Curriculum reforms.

#### **Essential Readings**

- 1. Report of the Delores Commission, UNESCO, 1996
- 2. National Curriculum Framework-2010

#### **References**

- 1. Agarwal, J.C. (2010). *Development and planning of modern education*. Coimbatore: TBH.
- 2. Arulsamy, S. (2010). *Curriculum development*. Hyderabad: Neelkamal.
- 3. Bhati, A. (2012). *Curriculum technology and learning*. New Delhi: Anmol.
- 4. Dash, B.N. (2007). *Curriculum planning and development*. India: Dominant.

5. Khan, M.S. (2004). *School curriculum*. India: APH.
6. Mangal., & Mangal. (2010). *Essentials of educational technology*. Coimbatore: TBH.
7. Mrunalini, T. (2007). *Curriculum development*. Hyderabad: Neelkamal.
8. NCERT. (2005). *National curriculum framework 2005*. India: NCERT.
9. Pannerselvam. (2010). *E-learning*. New Delhi: APH.
10. Promila, S. (2009). *Encyclopedia of curriculum development*. New Delhi: APH.
11. Promila, S. (2009). *Encyclopedia of curriculum development*. New Delhi: APH.
12. Rao, V.K. (2005). *Principles of curriculum*. New Delhi: APH.
13. Ritu, C. (2011). *Computers in teaching and learning*. New Delhi: Anmol.
14. Siddique, M.H. (2010). *Educational evaluation*. New Delhi: APH.
15. VijayaKumari, K., & Sharma, S.R. (2002). *Comparative education*. New Delhi: Anmol.

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	1	3			2	2	1	3	1	1	1
CO2	1	2	1		2	2	1	2	2	3	2
CO3		3	2	2	3	2		3	2		1
CO4	2	3	2		1	3	1	2	3	2	2
CO5	2	3	1	2	1	2		2	2	1	2

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## M3 CC 08 - EDUCATION FOR DIFFERENTLY ABLED

### Preamble

The aim of this course is to enable the student teachers to understand the differently abled persons and their educational provisions pertaining to various disabilities.

### Course Outcomes (COs)

On the successful completion of the course, prospective teacher educators will be able to

CO1	summarize the basic concepts on special education with PWD act and Rehabilitation Council of India.
CO2	explain the different kinds of differently abled children
CO3	predict the characteristics of disorders
CO4	integrate service delivery models in special education and rehabilitation services
CO5	predict the problems and research in special education

### Unit - 1: Basic Concepts on Special Education (14 Hours)

- 1.1 Meaning of Special Education and Classification of Special need children.
- 1.2 Objectives and role of Rehabilitation Council of India.
- 1.3 People With Disability (PWD) Act 1995, National Trust Act 1999.
- 1.4 Role of Governmental and Non Governmental Agencies in Special Education.
- 1.5 Significance of Intervention Services and assessment for various categories in special education.

### Unit - 2: Fundamentals of Children with Mental and Physical Exceptional (14 Hours)

- 2.1 Meaning, Characteristics, Types, Identification of Gifted and Mentally Retarded.
- 2.2 Meaning and types of Orthopedic Handicap.
- 2.3 Meaning, Characteristics, Types and non-clinical identification of Visual impairment.
- 2.4 Meaning, Characteristics, Types and non-clinical identification of Hearing impairment.
- 2.5 Educational services for impairments in mental and physical aspects under special education.

### Unit - 3: Introduction to Other Categories of Disability (14 Hours)

- 3.1 Meaning, Characteristics, Types and identification of learning disabled.
- 3.2 Meaning, Characteristics of Autism.
- 3.3 Meaning, Characteristics and types of attention deficit disorders.
- 3.4 Meaning and Characteristics of Behavioral disorders.
- 3.5 Meaning and Classification of multiple disabilities.

**Unit - 4: Basic Concepts in Special Education and Rehabilitation Services (9 Hours)**

- 4.1 Meaning, Significance of rehabilitation services
- 4.2 Service delivery modes in Special Education – Regular mode (Residential, Integration) and Distance mode
- 4.3 Inclusive Education – Components of Inclusive Education.
- 4.4 Service delivery models in rehabilitation service – Center Based, Community Based.
- 4.5 Role of Parents, Siblings and Peer group.

**Unit – 5 : Research in Special Education (9 Hours)**

- 5.1 Research in Special Education in India.
- 5.2 Problems in doing research in Special Education.
- 5.3 Need for practical classroom research.
- 5.4 Single subject design – its significance.
- 5.5 Concept and need for research in Assistive Technology for Children with special needs.

**References**

1. Algozzire, B., & Yesseldyke, E. (2006). *Effective instruction of students with special needs: apractical guide for every teacher*. Thousand Oaks, CA: Corwin Press.
2. Bigge, J.L., & Stump, C. (1999). *Curriculum assessment and instruction for students with disabilities*. Belmont, C.A: Wadworth.
3. Daniel, H.P., & James, K.M. (1978). *Exceptional learners- Introduction for special education (8th ed.)*. London: Allen andBacon.
4. Farrell, M. (2009). *Foundations of special education: An introduction*. Singapore: Wiley-Blackwell.
5. Kundu, C.L. (2003). *Status of disability in India - 2003*. New Delhi: Rehabilitation Council of India.
6. Kundu, C.L. (2000). *Status of disability in India – 2000*. New Delhi: Rehabilitation Council of India.
7. Lewis, R.B., & Doorkey, D.H. (1988). *Teaching special children in the main stream*. Columbia.
8. Mangal, S.K. (2007). *Educating exceptional children- an introduction to special education*. New Delhi: PHI.
9. *Listening to sounds and signs*. CBM International, Germany, 1998.
10. Yesseldyke, E.J. (1998). *Special education – A practical approach for teachers*. New Delhi: Kanishka.

**Mapping of Course Outcomes (COs) with Programme Outcomes (POs)**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2			3	3	1	3	1		2
CO2	2	2	1	1	3	3	1	3	2		2
CO3	2	3			2	3		3	2		1
CO4	2	2	2		2	2		3	2	1	3
CO5	3	3	3	1	2	3	1	3	2	2	1

**3 - High Correlation****2 - Moderate Correlation****1 - Low Correlation**

## M3 CC 09 - VALUE EDUCATION

### Preamble

The aim of this course is to understand the values, values of eminent personalities, the impact of global ethics and values, values in curriculum and enrich the values for professional development in teaching professionals.

### Course Outcomes (Cos)

On the successful completion of the course, prospective teacher educators will be able to

CO1	explain the theories on value development.
CO2	analyse the educational ideas and thoughts on values of eminent personalities
CO3	describe the value conflict and impact of global development on ethics and values
CO4	identify the teaching methods for value development
CO5	develop the research perspectives in Valued Education

### Unit – 1 : Introduction to Values

(10 Hours)

- 1.1 Values – meaning, nature, need and importance
- 1.2 Philosophical theories on value development: Idealism, Naturalism and Pragmatism.
- 1.3 Psychological theories on value development: Kohlberg and Piaget.
- 1.4 Place of values in character formation in education of 21st century
- 1.5 Classification of values: Mahatma Gandhi's Classification – NCERT Classification

### Unit - 2: Educational Ideas and thoughts on Values of Eminent Personalities' (12 Hours)

- 2.1 Rabindranath Tagore's educational ideas and thoughts on values.
- 2.2 Swami Vivekananda's educational ideas and thoughts on values.
- 2.3 Mahatma Gandhi's educational ideas and thoughts on values.
- 2.4 Sri Aurobindo's educational ideas and thoughts on values.
- 2.5 Jiddu Krishnamurthy ideas and thoughts on values.

### Unit - 3: Impact of Global Development on Ethics and Values

(12 Hours)

- 3.1 Conflict of cross-cultural influences, mass media, cross-border education, materialistic values.
- 3.2 Value conflict: Value conflict and Social unrest – Socio-economic status and values – Attitude towards life – impact of values on life
- 3.3 Challenges of adolescents: Emotional and Behavioral Conflicts.
- 3.4 Impact of Globalization and Science & Technology development on democracy - socialization – secularism - religious harmony.
- 3.5 Challenges in living together: family life – sharing and caring – accommodation and adjustment – family norms and traditional norms.

**Unit - 4: Integration of Values in Curriculum (14 Hours)**

- 4.1 Integration of values in school subjects: language, mathematics, science and social science
- 4.2 Experiential Learning: Case method – Role Play – Simulations – Games – Situational Experiences.
- 4.3 Teaching methods for value development: method of attitudinal change - Spiritual therapy - brainstorming
- 4.4 Inculcating values through co-curricular activities: assembly - sports and games – debates - club activities - cultural meet
- 4.5. Value inculcation through personal examples of eminent personalities.

**Unit – 5 : Inculcation of Values for Professional Development (12 Hours)**

- 5.1 Meaning and concept of professional values and ethics - vocational and career development.
- 5.2 Professional competence - professional efficiency – confidence building and devotion - Accountability
- 5.3 Understanding the work culture – willingness to change – team spirit
- 5.4 Awareness on changing career opportunities – adaptation for transition to work place.
- 5.5 Research perspectives in value education: Recommendations of committees and Policies.

**References**

- 1. Chilana, M.R., & Dewan, M.L. (2002). *The human value*. India: Concept.
- 2. Chitkara, M.G. (2003). *Education and human values*. India: A.P.H.
- 3. Chitkara, M.G. (2013). *Education and human values*. New Delhi: APH.
- 4. Erickson, (1994). *Stirring the head, heart and soul: Redefining curriculum and instruction*. India: Sage.
- 5. Gupta, N.L. (1992). *Creativity and values*. India: Arya.
- 6. Ghose, D.N. (2005). *A text book of value education*. New Delhi: Dominant.
- 7. Kiruba, C., & Arulselvi, V. (2014). *Peace and value education*. Hyderabad: Neelkamal.
- 8. MaxMuller, F. (1995). *Ramakrishna his life and sayings*. India: Advaita Ashrama.
- 9. Patro, R.K., & Mishr, B.C. (2007). *Value profile of school students*. New Delhi: Discovery.
- 10. Piaget, J. (1932). *The moral judgement of the child*. London: Kegan Paul, Trench, Truner & Co.
- 11. *Report of the working group to the review teacher's programme* (1983). Ministry of Education & Culture, New Delhi.
- 12. Saraswathi, T.S. (1999). *Culture, socialisation and human development*. India: Sage.
- 13. Sarma, D.S. (1967). *The master and the disciple*. Chennai. Sri Ramakrishna Math.



14. Secretary of CBSE. (2012). *Value education – handbook for teachers*. New Delhi: Central Board of Secondary Education.
15. Sharma, S.R. (2006). *Education and democratic values*. India: Cosmo.
16. Sodhi, T.S., & Suri, A. (1998). *Philosophical and sociological foundations of education*. India: Bhargava.
17. *Summary of recommendations of the high level seminar on value*, Simla, May 27-28 (1981)
18. Swaroop Sexena, N.R. (1998). *Principles of education*. India: Lali.
19. *The complete works of Swami Vivekananda*. India: Advaita Ashrama.
20. *The life of Swami Vivekananda*. India: Advaita Ashrama.
21. Venkataiah, N., & Sandhya. (2004). *Research in value education*. New Delhi: APH.

### Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	1		1		2	1	1	2	1	3
CO2	3	3				2		1	2	2	3
CO3	1			1	1	2	1	2	2	2	3
CO4	2	2	2		2	2	2	2	1	3	2
CO5	2	2	3		2	2		2	2	1	3

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## **SEMESTER - IV**

<b>Course Code</b>	<b>Course Title</b>
<b>M4 CC 10</b>	<b>Teacher Behaviour and Classroom Communication</b>
<b>M4 CC 11</b>	<b>Educational Management and Administration</b>
<b>M4 CC 12</b>	<b>Environmental Education</b>

## **M4 CC 10: TEACHER BEHAVIOUR AND CLASSROOM COMMUNICATION**

### **Preamble**

The aim of this course is to understand the teacher behavior and classroom climate.

### **Course Outcomes (COs)**

On the successful completion of the course, prospective teacher educators will be able to

CO1	recognize the significance of classroom behaviour and communication of teachers and firmly follow them in their profession.
CO2	recognize the implications of teacher behaviour and apply various measuring techniques for studying teacher behaviour.
CO3	appreciate the significance of the study of teacher behaviour and teaching models in the context of efforts to promote teacher effectiveness.
CO4	apply different techniques and conduct action research as tools for modifying teacher behaviour.
CO5	realize different avenues of personal, social, behavioural modification models and apply the values in classroom interactions to nurture an egalitarian society.

### **Unit – 1 : Teaching and Teacher Behaviour (10 Hours)**

- 1.1 Meaning and Definitions of teaching and teacher behaviour.
- 1.2 Teaching Strategies: special features and characteristics
- 1.3 Teaching devices : concept, meaning and types
- 1.4 Distinguishing Teaching method from Teaching strategies, Teaching devices, Teaching Tactics
- 1.5 Classroom climate: meaning and concept, implications

### **Unit - 2: Measuring Teacher Behaviour (10 Hours)**

- 2.1 Techniques for Studying Teacher Behaviour.
- 2.2 Factors Affecting Teacher Behaviour.
- 2.3 Teacher Behaviour as Dependent and Independent attributes.
- 2.4 Category Systems and Sign Systems.
- 2.5 Inter-observer Reliability.

### **Unit - 3: Types of Selected Category Systems (14 Hours)**

- 3.1 Flander's Interaction Analysis Categories.
- 3.2 Reciprocal Category System.
- 3.3 Equivalent Talk Category.

3.4 Principles of evolving category system.

3.5 Innovative Techniques in Classroom Interaction – Rao's Model – Bale's Model.

#### **Unit - 4: Techniques for Modification of Teacher Behaviour (12 Hours)**

4.1 Need and importance of Modification of Teacher Behaviour.

4.2 Interaction analysis and Transaction analysis

4.3 Action research and modification of teacher behaviour

4.4 Skill-based teaching practice and modification of teacher behaviour

4.5 Teacher evaluation: Evaluation of Teachers by students, peers, stakeholders – self appraisal

#### **Unit - 5: Basic Ideas of Models of Teaching (14 Hours)**

5.1 Characteristics and fundamental elements of teaching models

5.2 Information processing models

5.3 Social Interaction models

5.4 Personal development models

5.5 Behaviour modification models

#### **References**

1. Amidon, E. J., & Hough, J. B. (1967). *Interaction analysis: Theory, research and application*. London: Addison Wesley.
2. Flanders, N.A. (1970). *Analysing teacher behaviour*. New York: Addison Wesley.
3. Joyce, B., & Weil, M. (1972). *Models of teaching*. New Jersey: Prentice Hall.
4. Khanna, S.D. (1982). *Technology of teaching*. New Delhi: Doaba House.
5. Mangal, S.K., & Mangal, U. (2009). *Essentials of educational technology*. New Delhi: PHI.
6. Ober, R.L., Bentley, E.L., & Miller, E. (1971). *Systematic observation of teaching*. New Jersey: Prentice Hall.
7. Rao, V.K., & Reddy, R.S. (1992). *Effective teachers & teaching*. New Delhi: Commonwealth.
8. Shumsky, A. (1960). *In search of teaching style*. New York: Meredith.
9. Vashistha, K.K. (1982). *Interaction analysis: Theory and research*, Ajmer: Regional College of Education, Extension Service Department.

#### **Mapping of Course Outcomes (COs) with Programme Outcomes (POs)**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3						2			2	2
CO2	3	2		2							
CO3	3	3									2
CO4	3		3			2			2		
CO5	3							2		2	2

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

**M4 CC 11 - EDUCATIONAL MANAGEMENT AND ADMINISTRATION****Preamble**

The aim of this course is to enhance the knowledge in educational management and administration that includes educational planning, utilization of human, material and financial resources, and apply the knowledge in the management techniques in the framework of existing educational system.

CO1	recognise the concept of educational management and educational administration.
CO2	illustrate the effective management and utilization of human, material and financial resources.
CO3	acquire the requisite knowledge and skills for educational planning.
CO4	develop the skills for better classroom management and leadership qualities.
CO5	realise the recent trends in educational management in India.

**Unit – 1 : Introduction to Educational Management (12 Hours)**

- 1.1 Educational Management: Definition, Scope and Functions – Management and decision making – Management and Administration.
- 1.2 Management of School Education – Principles of Democratic School management – Functions of effective school management.
- 1.3 Modern educational administration - Major approaches to Modern Management -Application of modern management techniques to educational administration.
- 1.4 Basic Concepts and Types of Organisational Structure- School as a Social Organization – Types of Organisations - Reforms for School improvement.
- 1.5 Concept of Institutional Autonomy-Relationship between Academic Freedom and Institutional Autonomy

**Unit - 2: Resource Management (12 Hours)**

- 2.1 Resource Management - Types of Resources in Education - Management of Human,Material and Financial resources.
- 2.2 Resource identification: Procurement of Resources -Utilization and Maintenance of Resources
- 2.3 Human Resource Management – Teacher recruitment - Management of students: admission, participation in curricular and co-curricular activities - Management of Teaching and Learning Process- Management of student conflicts – disciplinary problems.

- 2.4 Management of Physical Resources -Records and registers – need and importance of maintaining records - types of records and other documents- time table- Preparation and its importance
- 2.5 Financial Management and Budgeting – concept of educational finance – principles of educational finance – administration of finance – sources of income and educational expenditure.

**Unit - 3: Educational Planning (12 Hours)**

- 3.1 Educational Planning: meaning, nature, need and importance of Educational Planning - principles of Educational Planning
- 3.2 Institutional Planning: Definition, Aims, Objectives and Characteristics of Institutional Planning – Preparation of an Institutional Plan – Headmaster and Institutional Plan.
- 3.3 Approaches to Educational Planning: Social Demand Approach - Man-power Approach -Return of Investment Approach (Cost - Benefit Approach)
- 3.4 Institutional structures and functions: NUEPA, SIEMAT, NCERT, SCERT and DIET.
- 3.5 Educational Planning in India: Progress, Problems and Prospects.

**Unit - 4: Classroom Management (12 Hours)**

- 4.1 Classroom Management – Principles - Techniques - understanding student needs – factors influencing Classroom Management.
- 4.2 Time Management – Importance – Types – Constraints.
- 4.3 Supervision and Inspection: meaning, need, characteristics – traditional vs. modern – Principles of supervision – difference between supervision, inspection and administration.
- 4.4 Leadership – Characteristics of an ideal teacher – Types: Autocratic, Democratic and Laissez faire styles.
- 4.5 Decision making - concept, definition, characteristics of decision making – role of educational managers and impact of decision making in an organization.

**Unit – 5 : Recent Trends in Educational Management in India (12 Hours)**

- 5.1 Quality: criterion and dimensions of quality - Quality Control, Quality assurance and indicators
- 5.2 Quality Education: Characteristics – Total Quality Management in Education – Concept, Principles and approaches.
- 5.3 Components of Performance Management in Schools - Monitoring School Performance – Best Practices - Performance Appraisal of Teachers
- 5.4 Quality concerns issues for research – status of research in educational management.
- 5.5 Decentralised planning and management: Problems and Issues – Implementation of RTE Act.

## References

1. Ananda, W.P., & Guruge. (1984). *General principles of management for educational planners and administrators*. Paris: UNESCO.
2. Bell, L. (1988). *Management skills in primary schools*. London: Routledge.
3. Bhagia, N.M. (1990). *Educational administration in India and other developing countries*. New Delhi: Commonwealth.
4. Bhatnagar, S.S., & Gupta P.K. (2005). *Educational management*. Meerut: R.Lall.
5. Bush, T., & Les, B. (2002). *The principles & practice of educational management*. London: Paul Chapman.
6. Bush, T. (1986). *Theories of educational management*. London: Harper & Row.
7. Kiranmayi, Y.S. (1989). *Management of higher education in India*. New Delhi: Crown.
8. Koontz, O' Donnel., & Weihrich. (1982). *Essentials of management*. New Delhi: Tata McGrawhill.
9. Krishnamacharyulu, V. (2005). *School management and systems of education*. Hyderabad: Neelkamal.
10. Luthans, F. (1998). *Organizational behaviour*. Boston: Irwin, McGraw Hill.
11. Mahajan, B., & Khullar, K.K. (2002). *Educational administration in central government: structures, processes, and future prospects*. New Delhi: Vikas.
12. Milton Charles, R. (1989). *Human behavior in organizations*, USA: Prentice Hall.
13. Mukhopadhyay, M. (2005). *Total quality management in education*. New Delhi: Sage.
14. Musaazi, J.C.S. (1982). *The theory & practice of educational administration*. London: The Macmillan.
15. Naik, J.P. (1965). *Educational planning in India*. New Delhi: Allied.
16. Naik, J.P. (1982). *The educational commission & after*. New Delhi: Allied.
17. Pareek, U. (1988). *Organizational behaviour process*. Jaipur: Rawat.
18. Roger, S. (1995). *Successful school management*. Tokyo: McGraw Hill.
19. Ronald Cambell, F. (1987). *A history of thought and practice in educational administration*. New York: Teachers College Press.
20. Rao, V.S.P., & Narayana. (1987). *Principles and practice of management*. Delhi: Konark.
21. Sharma, R.C. (1983). *School management*. Delhi: Sarita Prakashan.

## Mapping of Course Outcomes (COs) with Programme Outcomes (POs)

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	2		2	3	2		2				2
CO2			2	3	2	2	2	2	2	2	2
CO3	2	2		2	2	2	2	2	2	2	2
CO4			2	2		2	3	2	2	2	2
CO5		2	2	3	2	2			2		

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**

## M4 CC 12 - ENVIRONMENTAL EDUCATION

### Preamble

The aim of this course is to make aware of Environments needs, Natural Resources and Problems, Environment based Curriculum, Sustainable development, Social issues and Environmental Protection Acts.

CO1	obtain a clear understanding of the purpose, needs, approach and impact of environmental Education.
CO2	prioritize and Evaluate the natural resources and related issues and the role of the individual in the conservation of natural resources.
CO3	appraise the importance of environmental education at the school level in the curriculum.
CO4	integrates and plans the sustainable growth through socio-economic and environmental Education
CO5	practice and Examine pollution reduction and relevant legal provisions through environmental protection Acts.

### Unit – 1: Introduction

(12 Hours)

- 1.1 Environment – definitions and need – types and structure
- 1.2 Environmental Education – Meaning, Scope, Principles, Aims and Objectives
- 1.3 Need and Importance of Human – Environmental relationships
- 1.4 Approaches to the study of Environmental Education – Types – social implications
- 1.5 Educational Implications: Deterministic Approach - Teleological Approach - Possibilistic Approach – Economic and Deterministic Approach - Ecological Approach

### Unit - 2: Natural Resources and Associated Problems

(12 Hours)

- 2.1 Natural resources – definition, meaning and its classification.
- 2.2 Forest Resources, Water resources and Land resources– importance, ecological significance, degradation, causes of degradation and management and conservation.
- 2.3 Energy resources – Need, importance and types.
- 2.4 Greenhouse gases and Global warming-causes- effects and control measures
- 2.5 Role of an Individual in conservation of Natural resources.

### Unit - 3: Environmental Education Curriculum

(12 Hours)

- 3.1 Meaning, Need and Principles of Environmental Education Curriculum
- 3.2 Environmental Education and School Curriculum
- 3.3 Constraints for the implementation of Environmental Education
- 3.4 Important components of Environmental Education Curriculum.
- 3.5 Environmental Education syllabi – analysis at different levels



**Unit - 4: Environmental Education – Sustainable Development (12 Hours)**

- 4.1 Meaning, definition and improving sustainable development
- 4.2 Social dimensions of sustainable development
- 4.3 Economic Dimensions of Sustainable development
- 4.4 Environmental Dimensions of sustainable development
- 4.5 Development plans for social, economic and environmental elements - World Summit on sustainable development

**Unit - 5: Environmental Protection Acts and Disaster Management (12 Hours)**

- 5.1 Common environmental problems in India.
- 5.2 Resettlement and rehabilitation of people - issues and concerns.
- 5.3 Environmental protection and policies in India
- 5.4 Environmental protection – objectives of selective control protection Acts in India: The Air Act, 1981; The Water Act, 1974; The Wildlife Protection Act, 1972; Forest (Conservation) Act, 1980, Environmental Protection Act, 1986
- 5.5 Issues involved in enforcement of Environmental Legislation, Public awareness and awareness about SDG17 and Agenda 2030.

**References**

1. Agarwal, K.C. (2001). *Environmental biology*. Bikaner: Nidi.
2. Arumugan, N. (1998). *Concepts of ecology*. Nagarkoil: Saras.
3. C.P.R. Environment Education Center. *Water - A book of facts and activities*. Madras: Aiyar
4. C.P.R. Environment Education Centre. *Noise pollution*. Madras: Aiyar.
5. Gleick, H.P. (1993). *Water in crisis* - Pacino institute for studies in developmental environmental and security. Stockholm Env. Institute: Oxford University Press.
6. *Indian institute of ecology and environment occasional monographs*. Number 21.
7. McKinney, M.L., & Schocb, R.M. (1996). *Environmental science systems and solutions*. Webenhanced Edition.
8. Nagarajan, K., Sivakumar, P., Nithyasri, N., & Srinivasan, R. (2005). *Environmental education*. Chennai: Ram.
9. Ravikrishnan, A. (2005). *Environmental science and engineering*. Chennai: Sri Krishna.
10. Shivastava, K.K. (2004). *Environment education*. New Delhi: Kanishka.

**Mapping of Course Outcomes (COs) with Programme Outcomes (POs)**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1		2		3						1	
CO2	3	2								1	
CO3	1				3						2
CO4		1	2						3		
CO5		2								3	1

**3 - High Correlation**

**2 - Moderate Correlation**

**1 - Low Correlation**



## Model Question Paper with COs and Knowledge Level

SRI RAMAKRISHNA MISSION VIDYALAYA COLLEGE OF EDUCATION  
(An Autonomous College affiliated to the Tamil Nadu Teachers Education University and  
Re-accredited with A++ grade by NAAC with CGPA 3.82)

COIMBATORE – 641 020

B.Ed., Degree Programme

I Semester Examination - February 2023

Note:

1. Answer ALL the questions in Section A, B & C and TWO in section D.
2. Answer in one word for in Section A, Should not exceed 100 words in Section B, 400 words in Section C and 800 words in Section D.
3. Each question in Section A carries 1 mark, B 4 marks, C carries 6 marks and D carries 15 marks.

Time: 3 Hour

Max Marks: 100

B1 CC 02 - Learner and Learning - I

### Course Outcomes (COs)

On the successful completion of the course, student teachers will be able to

- CO1 remember individual development in socio-cultural context. Apply it to deal the issues of cohesiveness and diversity in teaching and learning process.
- CO2 analyse different dimensions and stages of human development to deal the problems of childhood and adolescent learners.
- CO3 evaluate the cognitive capabilities and affective competencies among learners.
- CO4 develop and utilize digital resources to understand the nature of learning and guide the learner's learning.
- CO5 measure the quality of learning in different school context. Synthesises different school context to develop positive and progressive learning among learners.

### Section –A

Answer ALL the Questions

(20 X 1 = 20 Marks)

- I. Choose the Correct Answer
- II.

1. Observing the behavior of individuals by joining them as an associate or participant in any of their individuals or group activities is  
(a) Formal observation  
(b) Informal observation  
(c) Participant observation  
(d) Non participant observation

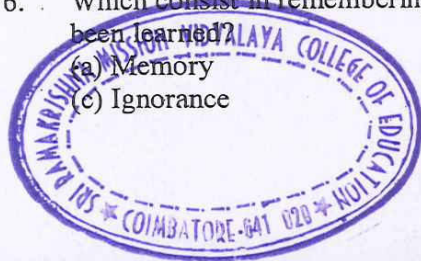


Principal i/c

Sri Ramakrishna Mission Vidyalaya  
College of Education (Autonomous)  
Coimbatore-641 020.



- தனிநபர்கள் அல்லது குழு நடவடிக்கைகளில் ஒரு கூட்டாளியாகவோ அல்லது பங்கேற்பாளராகவோ சேர்வதன் மூலம் தனிநபர்களின் நடத்தையை கவனிப்பது  
(a) முறையான கவனிப்பு  
(b) முறைசாரா கவனிப்பு  
(c) பங்கேற்பாளர் கவனிப்பு  
(d) பங்கேற்பாளர் அல்லாத கவனிப்பு
2. Acquisition of new behavior or strengthening or weakening of old behavior as the result of experience is called CO 3 K2  
(a) Learning (b) Development  
(c) Growth (d) Teaching  
அனுபவத்தின் விளைவாக புதிய நடத்தையைப் பெறுதல் அல்லது பழைய நடத்தையை வலுப்படுத்துதல் அல்லது பலவீனப்படுத்துதல்  
(a) கற்றல் (b) மேம்பாடு (c) வளர்ச்சி (d) கற்பித்தல்
3. Which refers to overall changes resulting in improved functioning of the individual? CO 2 K1  
(a) Growth (b) Development  
(c) Maturity (d) Experience  
தனிநபரின் மேம்பட்ட செயல்பாட்டின் விளைவாக ஒட்டுமொத்த மாற்றங்களைக் குறிப்பிடுவது?  
(a) வளர்ச்சி (b) மேம்பாடு (c) முதிர்வு (d) அனுபவம்
4. The process of development of desirable change in his social behavior is referred to as CO 1 K1  
(a) Emotional development (b) Emotional maturity  
(c) Social development (d) Biological development  
சமூக நடத்தையில் விரும்பத்தக்க மாற்றத்தின் வளர்ச்சியின் செயல்முறை என குறிப்பிடப்படுவது?  
(a) உணர்ச்சி வளர்ச்சி (b) உணர்ச்சி முதிர்ச்சி  
(c) சமூக வளர்ச்சி (d) உயிரியல் வளர்ச்சி
5. Sensation and Perception are considered important aspects of one's CO 2 K1  
(a) Physical development (b) Mental development  
(c) Social development (d) Motor development  
உணர்வு மற்றும் உணர்தல் ஒருவரின் முக்கிய அம்சங்களாகக் கருதப்படுகின்றன  
(a) உடல் வளர்ச்சி (b) மன வளர்ச்சி  
(c) சமூக வளர்ச்சி (d) உடல் இயக்க வளர்ச்சி
6. Which consist in remembering what has previously been learned? CO 3 K1  
(a) Memory (b) Forgetfulness  
(c) Ignorance (d) Blackout



- முன்பு கற்றுக்கொண்டதை நினைவில் வைத்துக் கொள்வது எது?  
(a) நினைவாற்றல் (b) மறதி  
(c) அறியாமை (d) இருட்டடிப்பு
7. An adequate adjustment of life situation is possible due to CO 1 K2  
(a) Psychology (b) Mind  
(c) Learning (d) Nervous system  
வாழ்க்கை சூழ்நிலையை போதுமான அளவு சரிசெய்தல்  
(a) உளவியல் (b) மனம் (c) கற்றல் (d) நரம்பு மண்டலம்
8. The curves often seen in the learning situation where the task is new or difficult in the beginning is CO 3 K1  
(a) Positive curve (b) Negative curve  
(c) convex shaped curve (d) linear curve  
ஒரு பணி புதியதாகவோ அல்லது தொடக்கத்தில் கடினமாகவோ இருக்கும்பொழுது கற்றல் சூழ்நிலையில் அடிக்கடி காணப்படும் வளைவு  
(a) நேர்மறை வளைவு (b) எதிர்மறை வளைவு  
(c) குவிந்த வடிவ வளைவு (d) நேரியல் வளைவு
9. Thinking is essentially a/an CO 3 K2  
(a) Emotional activity (b) Cognitive activity  
(c) Social activity (d) Physical activity  
சிந்தனை என்பது அடிப்படையில்  
(a) உணர்ச்சி செயல்பாடு (b) அறிவாற்றல் செயல்பாடு  
(c) சமூக செயல்பாடு (d) உடல் செயல்பாடு
10. Dividing into parts and each part is memorized separately is known as CO 3 K1  
(a) Whole memorization method  
(b) Part memorization method  
(c) Spaced memorization  
(d) Unspaced memorization  
பகுதிகளாகப் பிரித்து ஒவ்வொரு பகுதியையும் தனித்தனியாக மனப்பாடம் செய்வது எனப்படுவது?  
(a) முழு மனப்பாடம் செய்யும் முறை  
(b) பகுதி மனப்பாடம் செய்யும் முறை  
(c) இடைவெளியில் மனப்பாடம் செய்தல்  
(d) இடைவெளி இல்லாத மனப்பாடம்
- II Fill in the Blanks**
11. The loss, permanent or temporary of the ability to recall or recognize something is CO 1 K2  
நிரந்தர அல்லது தற்காலிகமான நினைவுபடுத்தும் அல்லது அடையாளம் காணும் திறனின் இழப்பு \_\_\_\_\_
12. Hitting in ball badminton interferes with hitting a shuttle badminton - here the transfer is CO 5 K2  
\_\_\_\_\_



- பால் பேட்மிண்டனில் அடிப்பது ஷட்டில் பேட்மிண்டனைத் தாக்குவதில் குறுக்கிடுகிறது. இங்கே \_\_\_\_\_ பரிமாற்றம் நிகழ்கிறது.
13. Those who can express their emotions in a proper degree at a proper time are found to possess a healthy \_\_\_\_\_ CO 1 K1
- சரியான நேரத்தில் தங்கள் உணர்ச்சிகளை சரியான அளவில் வெளிப்படுத்தக்கூடியவர்கள் \_\_\_\_\_ ஆரோக்கியமானவர்களாகக் காணப்படுகின்றனர்.
14. The most important characteristics of learning is \_\_\_\_\_ CO 5 K1
- modification of \_\_\_\_\_.
- கற்றலின் மிக முக்கியமான பண்பு \_\_\_\_\_ இன் மாற்றமாகும்.
15. The third stage of Piaget's cognitive development is \_\_\_\_\_ CO 3 K1
- \_\_\_\_\_ பியாஜெட்டின் அறிவாற்றல் வளர்ச்சியின் மூன்றாவது நிலை

### III Matching

- |   |   |  |      |    |
|---|---|--|------|----|
| 16. Interpretation of senses<br>புலன்களின் விளக்கம்               | - | (a) Problem-solving<br>சிக்கலைத் தீர்ப்பது | CO 1 | K1 |
| 17. Attention<br>கவனம்  | - | (b) Pavlov<br>பாவ்லோவ்                     | CO 1 | K1 |
| 18. Classical conditioning<br>ஆக்கநிலையிறுத்த கோட்பாடு            | - | (c) Rote memory<br>மனப்பாடம்               | CO 1 | K1 |
| 19. Learning without understanding -<br>புரிந்து கொள்ளாமல் கற்றல் | - | (d) Perception<br>புலனுணர்வு               | CO 2 | K2 |
| 20. Discovering solutions<br>தீர்வுகளைக் கண்டறிதல்                | - | (e) Reasoning<br>நியாயப்படுத்துதல்         | CO 2 | K2 |
|   | - | (f) Alertness<br>விழிப்புடன் இருப்பது      |      |    |

### Section - B

Very Short Answer Questions (5 X 4 = 20 Marks)

Answer All the Questions

21. (a) What is individual difference? Briefly explain with suitable examples.  
தனிப்பட்ட வேறுபாடு என்றால் என்ன? பொருத்தமான உதாரணங்களுடன் சுருக்கமாக விளக்கவும். CO 2 K1
- (or)
- (b) Differentiate nature and nurture. Explain the role of both in individual development.  
பிறப்பு, சூழ்நிலை - வேறுபடுத்து. தனிமனித வளர்ச்சியில் அதன் பங்கை விளக்கு. CO 1 K2

22. a) Define problem solving.  
சிக்கலைத் தீர்ப்பதை வரையறுக்கவும். CO 3 K1
- (or)
- (b) What is case study method?  
வழக்கு ஆய்வு முறை என்றால் என்ன? CO 2 K1
23. (a) Differentiate Cognitive, Affective and Psychomotor domains.  
அறிவாற்றல் களம், உணர்வுக்களம், உள இயக்க களம் - வேறுபடுத்து. CO 3 K2
- (or)
- (b) Define sensation and perception. Explain in detail about concept formation.  
உணர்வு மற்றும் உள்ளுணர்வு வரையறுக்கவும். கருத்து உருவாக்கம் பற்றி விரிவாக விளக்கவும். CO 2 K2
24. (a) Justify the need for learner-centered approach in teaching.  
கற்பித்தலில் மாணவர் மைய அணுகுமுறைகளின் தேவையைப் பற்றி நியாயப்படுத்துக. CO 3 K3
- (or)
- (b) What is short-term and long-term memory?  
குறுகிய கால மற்றும் நீண்ட கால நினைவாற்றல் என்றால் என்ன? CO 3 K1
25. (a) Differentiate between rote learning and meaningful learning with proper illustration.  
மனப்பாடம் செய்து கற்றல் மற்றும் பொருளுணர்ந்து கற்றல் ஆகியவற்றைத் தகுந்த எடுத்துக்காட்டுடன் வேறுபடுத்துக. CO 3 K2
- (or)
- (b) List the factors affecting psycho-social development of an individual.  
ஒரு நபரின் உளவியல்-சமூக வளர்ச்சியை பாதிக்கும் காரணிகளை பட்டியலிடு. CO 1 K1

### Section - C

Short Answer Questions (5 X 6 = 30 Marks)

Answer All the Questions

26. a) Define Educational Psychology. Describe the nature of Educational Psychology.  
கல்வி உளவியலை வரையறுக்கவும். கல்வி உளவியலின் தன்மையை விவரிக்கவும். CO 1 K2
- (or)
- (b) Define Growth and Development. Enumerate the principles of Growth and Development. CO 2 K1



- வளர்ச்சி மற்றும் முன்னேற்றம் வரையறு. வளர்ச்சி மற்றும் முன்னேற்றம் தொடர்பான கோட்பாடுகளைக் கூறுக.
27. (a) Describe the observation method in Educational Psychology. CO 1 K2  
கல்வி உளவியலில் கண்காணிப்பு முறையை விவரிக்கவும்.
- (or)
- (b) Define attention. Discuss about the factors affecting attention. CO 3 K2  
கவனம் வரையறுக்கவும். கவனத்தை பாதிக்கும் காரணிகளைப் பற்றி விவாதிக்கவும்.
28. (a) Narrate in detail about insight learning. CO 3 K2  
உட்காட்சிக் கற்றல் பற்றி விரிவாகக் கூறுக.
- (or)
- (b) Explain the types of Learning curves. CO 3 K2  
கற்றல் வளைவுகளின் வகைகளை விளக்குக.
29. (a) Explain the impact of Social Media on Adolescents behaviour. CO 4 K3  
சமூக ஊடகத்தைப் பயன்படுத்துவதால் குமரப்பருவத்தினர் பெறும் நன்மைகளையும், எதிர்கொள்ளும் இடர்பாடுகளையும் விவரி
- (or)
- (b) What is transfer of training? Discuss its types. CO 3 K2  
பயிற்சி பரிமாற்றம் என்றால் என்ன? அதன் வகைகளைப்பற்றி விவாதிக்கவும்.
30. (a) As a teacher, how will you deal with a student who has discipline problems in classroom? CO 5 K3  
ஒரு ஆசிரியராக, வகுப்பறையில் ஒழுக்கக் குறைபாடுகள் உள்ள மாணவரை நீங்கள் எவ்வாறு கையாள்வீர்கள்?
- (or)
- (b) Explain the Ebbinghaus forgetting curve. CO 3 K2  
Ebbinghaus மறக்கும் வளைவை விளக்குக.

#### Section – D

#### Essay Type Questions (2x15 = 30 Marks)

#### Answer Any Two Questions

31. Narrate Trial & Error experiment & critically analyse the laws of learning with suitable illustration. CO 3 K4  
முயற்சி தவறி கற்றலுக்கான சோதனையை எழுதி அதன் கற்றல் விதிகளை தகுந்த அடுத்துக்காட்டுடன் பகுத்தாராய்க.



32. What is cognitive development? Describe Piaget's cognitive development theory. CO 3 K3  
அறிவாற்றல் வளர்ச்சி என்றால் என்ன? பியாஜெட்டின் அறிவாற்றல் வளர்ச்சிக் கோட்பாட்டை விவரிக்கவும்.
33. Discover in detail about the strategies for improving student engagement in learning. CO 5 K3  
கற்றலில் மாணவர்களின் பங்கேற்பை மேம்படுத்த சில உத்திகளை பற்றி விவாதி.
34. Explain in detail about causes and types of forgetting. CO 3 K3  
மறதிக்கான காரணங்கள் மற்றும் வகைகள் பற்றி விரிவாக விளக்கவும்.

Principal

Sri Ramakrishna Mission Vidyalaya  
College of Education (Autonomous)  
Coimbatore-641 020.

## Outcome Based Education - Feedback



### SRI RAMAKRISHNA MISSION VIDYALAYA COLLEGE OF EDUCATION

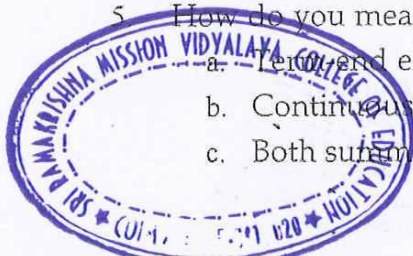
(Autonomous)

COIMBATORE - 641020

#### Feedback Proforma for Teachers

Name of the Faculty Member : Dr. M. Jagadesh  
Designation : Assistant Professor  
Feedback for the Academic year : 2022 - 23

1. Programme Outcomes and Course Outcomes are well-defined and conceivable by faculty members. a
  - a. All are well defined
  - b. Well defined, but not easily conceivable
  - c. Some are well defined
2. Upon completion of the programme, what outcomes students should have attained to? a
  - a. All the outcomes of all courses
  - b. Only selective course outcomes of core courses
  - c. Only selective course outcomes of allied courses
  - d. Only selective course outcomes of other credit courses
3. The Programme Outcomes and Course Outcomes are formulated as per the local demands of the community. a
  - a. Yes
  - b. To some extent
  - c. No
4. Do Course Outcomes contribute to the attainment of Programme Outcomes? b
  - a. Totally
  - b. Partially
  - c. None
5. How do you measure the attainment of Course Outcomes? c
  - a. Terminal examination
  - b. Continuous Internal Assessment
  - c. Both summative and formative evaluation

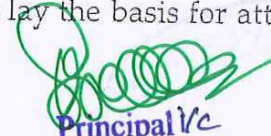


**Principal**  
Sri Ramakrishna Mission Vidyalaya  
College of Education (Autonomous)  
Coimbatore-641 020.



6. The Course Outcomes in the programme are relevant to the Programme Outcomes.
- a. Fully relevant
  - b. Partially relevant
  - c. Not at all
- a
7. In your view, prime reason for non-attainment of Programme Outcome is:
- a. Inadequate Instructional facility
  - b. Inappropriate curriculum
  - c. Inadequate teaching competency
  - d. Inadequate pre-requisite skills among students
- d
8. To what extent, the Programme Outcomes meet with the expectation of employers.
- a. Adequate
  - b. Partially adequate
  - c. Inadequate
- b
9. Value-added courses offered in the college supplement the Programme Outcomes of corecourses.
- a. Agree
  - b. Undecided
  - c. Disagree
- a
10. How do you rate the syllabus of the courses that you have gone through in relation to the expected Course Outcomes?
- a. Excellent
  - b. Good
  - c. Very good
  - d. Poor
- b
11. How far Course Outcomes and activities are matched with the various skill development programmes mentioned in the Programme Outcomes?
- a. High
  - b. Moderate
  - c. Low
  - d. None
- a
12. The Programme Outcomes and Course Outcomes lay the basis for attaining expected skill development.
- a. Agree
  - b. Undecided
  - c. Disagree
- a



  
Principal Vc  
Sri Ramakrishna Mission Vidyalaya  
College of Education (Autonomous)  
Coimbatore-641 020.

13. Do Programme Outcomes of various programmes result in both mastery learning and expected competencies?

- a. To a great extent
- b. Some what
- c. Very little
- d. Not at all

a

14. Whether the implementation of OBE based curriculum is beneficial to the students?

- a. Definitely
- b. Probably
- c. Definitely not

a

15. Programme Outcomes are intended to the development of critical thinking, and problem solving.

- a. Agree
- b. Undecided
- c. Disagree

a

16. Suggestions to improve the quality of Programme Outcomes.

\* Programme outcomes could be well achieved when students possess Pre-requisite skills when entering the Programme. Varied session during the introductory Phase could bridge the gap. Sessions like Diksharambh etc, could solve this issue.

17. Suggestions to improve the quality of Course Outcomes.

- \* More emphasis on content teaching in third semester could be given.
- \* Assessment tools of varied nature can be introduced and appropriate mapping shall be done.



  
Signature of the faculty member

Principal /c  
Sri Ramakrishna Mission Vidyalaya  
College of Education (Autonomous)  
Coimbatore-641 020.