

SYLLABUS

ON

**DIPLOMA IN SPECIAL EDUCATION FOR PERSON WITH
CEREBRAL PALSY**

Rehabilitation Council of India
(A Statutory Body under the Ministry of Social Justice and Empowerment)
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Acknowledgment
The Spastic Society of Tamil Nadu
Chennai

1.0. Preamble

This course is designed to train person who are committed to work with children who have neurological disabilities. The course structure provides for a comprehensive understanding of the varied needs of children with neurological disabilities & to meet those needs in a special schools and regular classroom.

There are very few courses in the country to train persons to educate children with neurological disabilities, especially cerebral palsy. This course has been designed to meet this growing need in the country.

2.0. Nomenclature

Diploma in Special Education for Person with Cerebral Palsy (DSE: CP)

3.0. Objectives

- 3.1. To have a through knowledge of psychological aspects of disability.
- 3.2. To have a through knowledge of medical aspects: basic anatomy, physiology & pathology in general and the nervous & musculoskeletal system.
- 3.3. To differentiate between Typical and Typical patterns of motor, cognitive speech, language & communication development in children.
- 3.4. To be able to carry out specific physical, speech and language therapy Programme for children with multiple disabilities prescribed by the under the guidance of physical, speech and language therapists.
- 3.5. to be able to plan and implement instruction programmes.
- 3.6. To prepare educational Programmes in special education and integrated settings.
- 3.7. To be able to make and use aids for classroom instruction.
- 3.8. To be familiar with appropriate low-cost technology.
- 3.9. To have the requisite skills to work in IBR and CBR settings.

4.0. Duration of the Course

One academic year of approximately 220 working days, 8 hours per day including one hour for lunch, 5 days per week, a total of 1400 hours. This duration includes:

Teaching & Practicals	:	180 Days
Educational Tour	:	10 Days
Tests & Examinations	:	30 Days

5.0. Entry Requirement

This course is aimed at training teachers who will have the necessary skills to work in a special education as well as an integrated setting. The entry children will be a pass in standard twelve. Preference will be given to candidates who are already working in the field of disability. A working knowledge of English is necessary.

6.0. Admission Procedure

Each training centre will evolve admission criteria and publish the same in its prospectus. The admission procedure will incorporate reservation policy and adhere to the laws of the country

7.0 Recommendation of Teachers / Student Ratio

Twenty students trainees (Max) in a batch will be admitted. The core staff will consist of two full time staff.

8.0. Teaching Faculty

The core faculty at each Centre will consist of the following staff.

1. Course Coordinator (Full Time)

The Course coordinator will have a Master's Degree either in Special Education, Psychology, or Social Work with a minimum of 3 year work experience out of which minimum one year teaching experience in the field of rehabilitation for the Cerebral Palsy.

2. Lecture (Full Time)

The lecture will have a Post Graduate Diploma in any Rehabilitation Science or B.Ed Special Education (MR) or a degree in Psychology in Social work with Two year Working experience out of which minimum one year teaching experience in the field of rehabilitation for the cerebral palsy.

3. Internal Faculty (Full Time / Part Time)

The Internal Faculty will be consisting of qualified special education with Degrees or Post Graduate Diplomas in Special Education, Physiotherapists, Speech Therapist with degrees, diplomas or Special workers with degrees or diplomas in, respective branch, and a Psychologist with a Master's Degree or Ph.D in Psychology. Each faculty must have minimum one year teaching experience.

4. External Faculty (Full Time / Part Time)

The external faculty will be consisting of medical specialists like Pediatrician, Neurologist, Orthopedic, Neuro Surgeon, Psychiatrist, Teacher or children with visually and hearing impairments, visiting lectures in special education, and in the field of rehabilitation.

Tutorial groups are organized where I tutor is responsible for 3-5 students.

9.0. Contents of the course

S.No	Group – A (Theory)	Max. Marks	Hours
1.	Medical Aspects	100	60
2.	Child Development, Psychology & Rehabilitation	100	100
3.	Assessment, Physical & Functional Management	100	95
4.	Communication, Hearing, Language & Speech	100	95
5.	Education for children with Cerebral Palsy	100	150
		500	500
Group – B (Practical & Assignments)			
1.	Assessment, Physical & Functional Management	100	100
2.	Communication, Hearing, Language & Speech	100	100
3.	Education for children with Cerebral Palsy	100	410
4.	Project	100	170
5.	Assessments	100	120
		500	900

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10.0 Requirements of Location, Staff, Space and Materials

10.1. Location

A centre where an inter-disciplinary team of experts to be teaching and Special School for person wit Cerebra Palsy to do the practical work and observation are available.

10.2. Staff (Non-Teaching)

- i. **Typist – Cum-Accountant**
- ii. **Peon**
- iii. **Librarian (Minimum Part-time)**
- iv. **Watchman (Desirable)**

10.3. Space

Office room, Classroom, Lecture room, Staff room, Toilets and Accommodation for trainees teachers.

10.4. Infrastructure

Furniture for Staff		
Full time Staff	Tables	3
	Chairs	3
	Cupboard (Steel)	3
Visiting Staff	Tables	2
	Chairs	2
Typist-Cum-Accountant	Tables	1
	Chair	1
Librarian	Table	1
	Chair	1
Peon	Stool	1

Furniture and Equipments of the office	
Cupboards (Steel	4
Filling Cabinet	1
Typewriter	1
Phone	1
Duplicate Machine	1
Wall Clock	1
Fan	1
Electrical Fittings (Lights)	6

Furniture and Audio Visual Equipment for Classroom	
Tables (for students)	20
Chairs (for students)	20
Slide Projector with screen	1
Tape recorder	1
Cassettes (Audio)	20
Black Board	1
VCR	1
T.V	1
Psychological Test Material Set (For demonstration)	1
Play therapy equipments set (for demonstration)	1
Educational Video and slides set (for all subjects), display chars, therapy dolls, teaching material, prototypes of special furniture and aids,(as per requirements).	

Furniture for Library	
Library Cupboards	6
Library Tables (large)	2
Library chairs	12

Furniture Demonstration class (to Teach 6 children)	
Tables	
Chairs	
Teaching Materials (as per requirements)	
Programme Plan Materials	

Van* for field placements, supervision, field study, home visits, agency visits.

- In case a van is provided, a driver must also be included in the staff required

10.5. Library Material

Books and journals on related subjects (Minimum 1000)

11.0. In Services Training

Faculty, especially the core – faculty, will be periodically encouraged to attend conferences, seminars, and workshop. Short-term courses interview of updating their knowledge and skills.

12.0. Format for Imparting Training

Theoretical subjects under Group A will be taught in class in close relationship with practical subjects under Group B. Teaching would generally take the form of discussions of problems arising out of actual experiences, supplemented by orally instructed and directed studies. Topics will be discussed in class and the teacher trainee will record their observation.

12.1. Teaching Methods

- ⇒ Lectures
- ⇒ Group discussions
- ⇒ Role play (wherever appropriate)
- ⇒ Guided practical work
- ⇒ Reports on observation (oral ad written)
- ⇒ Written work
- ⇒ Practice teaching with feedback

12.2 Lectures:

Lectures will be delivered by the experts in the field of cerebral palsy with case presentation, demonstration, slide projection, video and films.

12.3. Itinerant:

In the Individualized Educational Programme (practical) the trainee teachers are expected to make periodical home visit and help parent in implementing the programme effectively at home.

12.4. Prescribed Teaching Materials

The list of teaching materials will be as per the guidelines of the council which will be reviewed and updated once in two years.

12.5. Practicals:

Guided practical work as mentioned under **Group B**

12.6. Educational Tour:

Visit will be arranged to various Special Education Centre and Special Schools for about 10 days. The teacher trainees will be required to submit report separately on each school visited.

13.0. Evaluation:

- ⇒ A uniform pattern of evaluation will be adopted and the final examination will be held, simultaneously at all training centre.
- ⇒ 60% of marks will be allotted for external evaluation & 40% for internal evaluation. The result shall be declared on the basis of total obtained.
- ⇒ Candidates who fail in the examination can reappear in the next annual examination for which marks for internal assessment for the first attempt will be carried over.
- ⇒ Candidates who fail in the examination have the option of attending the whole course one again in which case, both internal and external reassessment will be made. However, no stipend will be paid for attending the course for the second time or thereafter.
- ⇒ No candidates shall be permitted to appear for the examination more than thrice.

13.1. Periodic Evaluation

The Course coordinator will conduct a minimum of two examinations and two tests during the training courses in all the subjects under **Group – A**. Marks obtained by the trainee will be entered in the register as part of internal assessment.

13.2. Attendance:

A minimum attendance of 80% during the academic term of the course shall be necessary before the taking the examinations.

13.3. Qualifying Marks.

Minimum 40% of marks in each theory papers and 50% in Practicals papers.

13.4. Declaration of results and award of Divison

A candidate who obtains 70% and above in the aggregate shall be declared to have fulfilled the requirement for conferring of the Diploma in Special Education (Cerebral Palsy) with distinction.

A Candidate who secure between 50% and 59.9% of marks in the aggregate shall be declared to have fulfilled the requirement for conferring of the Diploma in Special Education (Cerebral Palsy) in second class.

A candidate who secures between 40% and 49.9% of marks in the aggregate shall be declared to have fulfilled the requirement for conferring of the Diploma in Special Education (Cerebral Palsy) in Pass class.

14.0. Scheme of Examination for Theory and Practicals:

As per guidelines of the Council.

15.0. Board of Examiners

A Board consisting of 3 examiners shall conduct the examination.
The Board of Examiners will be an advisory body for the following.

- a. Co-ordinate setting of the theory and practical papers.
- b. Selection of external examiners
- c. Co-ordinate compilation of result.

The panel of examiners shall assist the board, both internal and external examiners appointed for the purpose.

16.0. External Examiners.

External Examiners for practical should know or at least understand the regional language of the State where the training centre is located.

17.0. Types of Questions

17.1. The examination paper would encompass three types of question namely essay type, short answers and objectives type with weightage of 40%, 30% and 30% respectively.

17.2. It has been proposed to prepare a Question Bank at each centre with trainee participation. The model paper would be sent to external examiners, trainees and as well circulated to all the centres.

18.0. Appearance for Each Examination

As per guidelines of the Council.

19.0. Medium of Language for Examination.

As per guidelines of the Council.

20.0. Reference Books etc.

As per the guidelines of the council

21.0. Award of Diploma

Based on the result in the examination, the successful candidates will be awarded Diploma in Special Education (Cerebral Palsy) by the authorities.

9.1.2.3. Genetic disorders in general : Down's syndrome, Arthrogryposis, Microcephalic hereditary spastic paraplegia

9.1.2.4. Pedigree chart.

9.1.3. Pathology:

(15 Hours)

9.1.3.1. Cerebral Palsy: Motor development etiology and classification, associated conditions (epilepsy etc.), Structural changes- in musculoskeletal system due to abnormalities in muscular tone, pathological reflexes, abnormal patterns of movement.

9.1.3.2. Mental Retardation: Etiology, associated conditions (epilepsy etc.), deteriorating conditions, medical management.

9.1.3.3. Muscular dystrophy:

9.1.3.4. Poliomyelitis

9.1.3.5. Spina bifida

9.1.3.6. Common orthopedic conditions: e.g. rickets, arthritis, arthrogryphosis

9.1.3.7. Deteriorating conditions and congenital syndromes e.g. ataxia, telangectasia, tuberous sclerosis.

9.1.3.8. Attention deficit hyperactive disorder

9.1.3.9. Learning disability

9.1.3.10. Differential diagnosis

9.1.4. Medical Rehabilitation :

(5 Hours)

9.1.4.1. Pharmacological rehabilitation

9.1.4.2. Orthopedic rehabilitation

9.1.4.3. Neurosurgical rehabilitation

9.2. Child Development, Psychology and Rehabilitation

(Total 100 Hours)

9.2.1. Normal Child Development

(5 Hours)

9.2.1.1. Introduction of Child Development

9.2.1.2. History of Development

9.2.1.3. Principles of Development

9.2.1.4. Critical periods

9.2.1.5. Heredity & Environment

9.2.1.6. Stages of Development – Prenatal, new natal infancy, pre-school year and adolescence

9.2.2. Introduction to Psychology (10 Hours)

- 9.2.2.1. History of Psychology
- 9.2.2.2. Schools of psychology
- 9.2.2.3. Methods of study

9.2.3. Perception: (6 Hours)

- 9.2.3.1. Definition
- 9.2.3.2. Process of perception
- 9.2.3.3. Illusion
- 9.2.3.4. Difficulties in perception

9.2.4 Memory (8 Hours)

- 9.2.4.1. Definition
- 9.2.4.2. Systems of memory
- 9.2.4.3. Forgetting
- 9.2.4.4. Strategies to enhance memory

9.2.5. Learning: (16 Hours)

- 9.2.5.1. Definition
- 9.2.5.2. Classical & Operant Conditioning
- 9.2.5.3. Insightful learning
- 9.2.5.4. Cognitive learning
- 9.2.5.5. Social leaning

9.2.6. Motivation: (4 Hours)

- 9.2.6.1. Definition
- 9.2.6.2. Types
- 9.2.6.3. Strategies to enhance motivation

9.2.7 Intelligence: (6 Hours)

- 9.2.7.1. Definition
- 9.2.7.2. Theories of Piaget
- 9.2.7.3. Multiple Intelligence

9.2.8. Play: (10 Hours)

- 9.2.8.1. Importance and Development of play
- 9.2.8.2. Play as a method of assessment & therapy

9.2.9. Counseling (10 Hours)

- 9.2.9.1. Definition
- 9.2.9.2. Importance
- 9.2.9.3. Models of Counselling
- 9.2.9.4. Difference between guidance and Counselling
- 9.2.9.5. Characteristics of Counselling
- 9.2.9.6. Characteristics of a good Counsellor

9.3. Assessment:- Physical and Functional Management (Total:95 Hours)

9.3.1. Introduction to Physiotherapy: (6 Hours)

- 9.3.1.1. Definition
- 9.3.1.2. Importance of Physiotherapy
- 9.3.1.3. Who needs Physiotherapy

9.3.2. Normal Motor Development: (20 Hours)

- 9.3.2.1. Development Milestones
- 9.3.2.2. Gross Motor Development
- 9.3.2.3. Fine motor Development
- 9.3.2.4. ADL- Activities of Daily Livings
- 9.3.2.5. Joints & Movements – Types, bones & muscles involved Range of Motion.
- 9.3.2.6. Muscle tone – Types
- 9.3.2.7. Reflexes – normal & pathological
- 9.3.2.8. Balance reactions – righting, equilibrium & protective reactions
- 9.3.2.9. Posture

9.3.3. Cerebral Palsy: (30 Hours)

- 9.3.3.1. Assessment: infant, child and adult.
- 9.3.3.2. Muscle Tone- Types assessment & Management
- 9.3.3.3. Primitive reflexes / Pathological reflexes
- 9.3.3.4. Associated problems and communications
- 9.3.3.4.1. Mental Retardation

- 9.3.3.4.2. Deformities in Cerebral Palsy
- 9.3.3.4.3. Epilepsy
- 9.3.3.4.4. Visual problems
- 9.3.3.4.5. Hearing & Speech problems

9.3.4. Management techniques: (30 Hours)

- 9.3.4.1. Positioning
- 9.3.4.2. Lifting & Carrying
- 9.3.4.3. Facilitation of movements
- 9.3.4.4. Balance exercises
- 9.3.4.5. Voluntary control exercises
- 9.3.4.6. Passive movements
- 9.3.4.7. Hydrotherapy
- 9.3.4.8. Group therapy
- 9.3.4.9. Play therapy
- 9.3.4.10. ADL

9.3.5. Assistive Devices : (9 Hours)

- 9.3.5.1. Therapy aids
- 9.3.5.2. Mobility aids
- 9.3.5.3. Modification of aids

9.4. Communication, Hearing, Language & Speech (Total Hours: 95)

9.4.1. Communication (5 Hours)

- 9.4.1.1. Definition & meaning of communication
- 9.4.1.2. Functions of communication
- 9.4.1.3. Features of good communication
- 9.4.1.4. Verbal & non-verbal communication
- 9.4.1.5. School age and above

9.4.2. Hearing: (2 Hours)

- 9.4.2.1. Incidence in Cerebral Palsy
- 9.4.2.2. Assessment and intervention

9.4.3. Language: (20 Hours)

- 9.4.3.1. Definition & meaning of Language
- 9.4.3.2. Structure of language – form, content & use
- 9.4.3.3. Components of language
- 9.4.3.4. Receptive & expressive language
- 9.4.3.5. Theories of language development
- 9.4.3.6. Stages of language development

9.4.4.. Speech : **(18 Hours)**

- 9.4.4.1. Definition
- 9.4.4.2. Speech as overlaid function
- 9.4.4.3. Supra segmental aspects of speech – prosodic components
- 9.4.4.4. Feedback of speech through various sensory modalities – Respiratory system-functions and different patterns of breathing, Phonatory System, Resonatory system & Articulatory system-different articulators (passive & active), Nervous system-cranial nerves involved in production of speech & anatomy of voice.
- 9.4.4.5. Speech sounds – consonants, vowels, diphthongs
- 9.4.4.6. Speech production
- 9.4.4.7. Difference between speech, language and communication.

9.4.5. Speech and Hearing Disorders

- 9.4.5.1. Dysarthria & Dyspraxia
- 9.4.5.2. Articulation disorders
- 9.4.5.3. Phonological disorders
- 9.4.5.4. Fluency disorder- stuttering
- 9.4.5.5. Voice disorder- aphonia, vocal abuse

9.4.6. Assessment: **(20 Hours)**

- 9.4.6.1. Speech Assessment
- 9.4.6.2. Oral-Motor Assessment
- 9.4.6.3. Feeding Assessment

9.4.7. Alternative and Augmentative Communication (AAC)

- 9.4.7.1. Definition
- 9.4.7.2. Assessment & System

9.4.8. Autism – Speech disorders & Management : **(5 Hours)**

9.4.9 Sensory Integration: **(5 Hours)**

9.5. Education for Children with Cerebral Palsy: **(Total : 150 Hours)**

9.5.1. Introduction of Education **(10 Hours)**

- 9.5.1.1. **General Education**
- 9.5.1.1.1. **Definition & Principles of Education**

- 9.5.1.1.2. National policy of Education
- 9.5.1.1.3. Child Centered Education
- 9.5.1.1.4. Montessori
- 9.5.1.1.5. Kindergarten
- 9.5.1.1.6. Nursery
- 9.5.1.1.7. Play way

9.5.2. Special Education: (6 Hours)

- 9.5.2.1. History of Special Education
- 9.5.2.2. Definition of Special Education
- 9.5.2.3. Who need Special Education

9.5.3. Conditions leading of problem in learning: (12 Hours)

- 9.5.3.1. Mental retardation / Intellectual disabilities
- 9.5.3.2. Cerebral palsy
- 9.5.3.3. Learning disabilities
- 9.5.3.4. Behavior problem
- 9.5.3.5. Autism

9.5.4. Legislation: (6 Hours)

- 9.5.4.1. Education for all children with handicaps- USA (PL 94 -142)
- 9.5.4.2. Individuals with disabilities and education Act-USA (1995)
- 9.5.4.3. Persons with disabilities Act – India 1995
- 9.5.4.4. Rights of the child – as per the convention of the Right of the chld
- 9.5.4.5. Advocacy.

9.5.5. Assessment : (15 Hours)

- 9.5.5.1. Hoe to do assessment?
- 9.5.5.2. Components of Assessment
- 9.5.5.3. Types of assessment
- 9.5.5.1.3.1. Curriculum references – Carolina- SPASTN format or any other indigenously development format
- 9.5.5.1.3.2. Adaptive – to handicap
- 9.5.5.1.3.3. Ecological
- 9.5.5.1.3.4. Behavioral
- 9.5.5.1.3.5. Functional
- 9.5.5.1.3.6. Vocational

9.5.6. Instruction: (27 Hours)

- 9.5.6.1. Planing for instruction
- 9.5.6.2. Classroom arrangement – types

- 9.5.6.3. Curriculum
 - 9.5.6.3.1. Definition
 - 9.5.6.3.2. Strategies to develop effective curriculum
- 9.5.6.4. Managing instruction
- 9.5.6.5. Delivering instruction
- 9.5.6.6. Teachers effectiveness- Variables
- 9.5.6.7. Stages and levels of learning
- 9.5.6.8. Lesson planning
- 9.5.6.9. Time management and scheduling
- 9.5.6.10. Maintaining records
- 9.5.6.11. Individualized evaluation.

9.5.7. Behavior Modification : (20 Hours)

- 9.5.7.1. Definition, meaning & classification of behavior
- 9.5.7.2. Principles governing behavior
- 9.5.7.3. Behavioral objectives
- 9.5.7.4. Techniques in increase desirable behavior
- 9.5.7.5. Techniques to decrease undesirable behavior
- 9.5.7.6. Behavior management in the classrom
 - 9.5.7.6.1. Rules in the classroom
 - 9.5.7.6.2. Reinforcement – types, Schedules, Techniques
- 9.5.7.7. Task analysis
- 9.5.7.8. Shaping
- 9.5.7.9. Chaining
- 9.5.7.10. Prompting
- 9.5.7.11. Modeling
- 9.5.7.12. Fading

9.5.7. Individualized Education Programme : (8 Hours)

- 9.5.7.1. Writing an IEP (Individualized Education Programme)
- 9.5.7.2. Stating goals and objectives
- 9.5.7.3. Periodic evaluation

9.5.8. Inclusive Education: (10 Hours)

- 9.5.8.1. Definition
- 9.5.8.2. Difference between integration and inclusion
- 9.5.8.3. Need for inclusion
- 9.5.8.4. Factors to implement I.E.
- 9.5.8.5. Implementation of I.E.
- 9.5.8.6. Classroom strategies

9.5.9. Academic skills: (8 Hours)

- 9.5.9.1. Reading
- 9.5.9.1.1. Pre-reading skills
- 9.5.9.2. Writing
- 9.5.9.2.1. Pre-writing skills
- 9.5.9.3. Spelling
- 9.5.9.4. Maths
- 9.5.9.5. Study skills
- 9.5.9.6. Functional academics (reading & maths)

9.5.10. Dyslexia: (10 Hours)

- 9.5.10.1. Definition, incidence, causes
- 9.5.10.2. Difficulties in reading, writing, spelling and problems in maths
- 9.5.10.3. Educational strategies to remedial difficulties in reading, writing, spelling and problem in maths.

9.5.11. Teaching pre-vocational skills: (5 Hours)

- 9.5.11.1. Definition, needs, objectives
- 9.5.11.2. Types of skills
- 9.5.11.3. Need for training
- 9.5.11.4. Methods of training

9.5.12. Vocational Rehabilitation: (5 Hours)

- 9.5.12.1. Definition
- 9.5.12.2. Types-sheltered, partially supported, open employment

9.5.13. Community Based Rehabilitation : (8 Hours)

- 9.5.13.1. Definition and need of CBR
- 9.5.13.2. Model of CBR
- 9.5.13.3. Criteria to start CBR programme
- 9.5.13.4. Components of CBR
- 9.5.13.5. Factors of implement CBR programme
- 9.5.13.6. Low cost aids.

Practicals

Total hours 900

I. Special Education for children with Cerebral Palsy: 410 Hours

a. Assessment: (00 Hours)

- Developing report
- Assessment procedure
- Reporting of assessment
- Viva

b. Class room teaching (Individual & Group): (310 Hours)

- Appropriateness of goals
- Management of problematic behaviour
- Sustaining motivation and attention
- Use of reinforcements
- Materials used
- Teaching procedure
- Classroom arrangement
- Time management
- Adheres of topic

II. Assessment, Physical and Functional Management: (100 Hours)

a. Assessment: 40 Hours

- Developing report
- Assessment procedure
- Reporting of assessment
- Viva

b. Intervention plan: 60 Hour

- Setting of functional management goals
- Implementation of goals
- Appropriateness of assistive devices
- Report
- Viva

III. Communication, Hearing, Language & Speech: 100 Hour

a. Assessment: 40 Hours

- Developing report
- Assessment procedure
- Reporting of assessment
- Reporting of assessment
- Viva

b. Intervention plan: 60 Hours

- Setting of management goals
- Implementation of goals
- Appropriateness of communication aids
- Report

IV. Assignments: 20 Hours

- Individual presentation
- Report of visits of organization
- Group presentation

V. Project Report: 170 Hours

- 5 Case studies in a CBR / IBR or rural extension programme.
- Awareness programme in villages
- Assessing and giving management plan for persons with disabilities in camps organized by NGO partners in different parts of the states.

