

## **PG Diploma in Early Intervention- PGDEI**

NORMS, GUIDELINES, AND COURSE CONTENT

Effective from Academic Session 2023 - 24

One year duration

FACULTY OF REHABILITATION AND BEHAVIOURAL SCIENCES DEPARTMENT OF SPEECH - LANGUAGE PATHOLOGY, SCHOOL OF REHABILITATION AND BEHAVIOURAL SCIENCES (SRBS) AARUPADAI VEEDU MEDICAL COLLEGE AND HOSPITAL CAMPUS Pondicherry - Cuddalore main road Kirumampakkam – 607 402 www.daslpvmrf.edu.in

## **Post Graduate Diploma in Early Intervention**

# Regulations, Norms, Scheme of Examination and Curriculum – (2023-24) (Annual scheme)

#### 1.0 Name of the course offered

The nomenclature of the program shall be Post Graduate Diploma in Early Intervention PGDEI shall be the short form.

### 2.0 Objectives of the PGDEI program

The primary objectives of the PGDEI program are:

- 1. To equip personnel to assess, plan and implement early intervention to infants and toddlers at risk & with developmental delays.
- 2. To develop competencies in organizing early intervention services.
- 3. To impart techniques of working with families and community for effective intervention.
- 4. To develop competency in report writing, record maintenance and communication.
- 5. To facilitate and integrate the children into community programmes and family guided intervention.

#### 3.0 Duration of the program

- **3.1** One complete academic year
- 3.2 The academic year is from the 1<sup>st</sup> week of September to last week of August.

#### 4.0 Medium of instruction

**4.1** Medium of instruction shall be English

## 5.0 Eligibility for admission

Candidates who have passed:

- a) M.B.B.S./BAMS/BUMS/BSMS/BNYS or Equivalent Degree
- b) BOT/BPT/BASLP/B.Ed-SE/ or Equivalent Degree
- c) B.Sc Nursing
- d) Post Graduate in Psychology/Social Work/Special Education/Child Development or Equivalent Degree with 55% aggregate marks in case of general candidates and 50% marks in case of SC and ST candidates are eligible to apply for this course.

### **5.1 Age limit:** Not exceeding 35 years.

## **6.0 Program Structure**

Theory	500 hours
Clinical Practicum	800 hours
Total	1300 hours

# CONTENT OF THE COURSE 6.1 THEORY

### **PAPER TITLE**

I. Neurobiology

II. Child Development and Learning

III. Assessment, Intervention and Evaluation

IV. Therapeutics

V. Family and community

## **6.2 PRACTICAL**

I. Case history and developmental assessments

II. Therapeutics Assessment, Intervention and Evaluation

III. Individualized Family Assessment

IV. Individualized Early Intervention Programming (IEI)

#### 7.0 Credit

## Minimum Credit Requirements:

The minimum credit points required for the award of **PGDEI** is 27. The credits are distributed as shown in Table 1.

The credit for each subject / paper is calculated as follows:

Theory: 1 hour = 1 credit, Clinicals: 2 hours = 1 Credit

#### Table 1:

Paper	Name of the paper	Univ, marks	Internal marks	Max marks	Univ exam duration	Credits
Paper- I	Neurobiology	80	20	100	3 hours	3
Paper- II	Child development and learning	80	20	100	3 hours	3
Paper-III	Assessment, Intervention and Evaluation	80	20	100	3 hours	3
Paper-IV	Therapeutics	80	20	100	3 hours	3
Paper-V	Family and Community	80	20	100	3 hours	3
Clinical Practicum- I	Case History and Developmental Assessments	100	50	150	6 hours	3
Clinical Practicum- II	Therapeutics Assessment and Intervention Evaluation	100	50	150	6 hours	3
Clinical Practicum- III	Individualised Family Assessment	100	50	150	6 hours	3
Clinical Practicum- IV	Individualised Early intervention Programming (IEIP)	100	50	150	6 hours	3
	Total	800	300	1100	39 hours	27 credits

## 8.0 Grading System:

Table 2: Letter grades and grade points equivalent to percentage of marks and performances:

Range of % of Marks	Letter Grade	Grade Point
95-100	O++	10.0
90-94	O+	9.5
85-89	0	9.0
80-84	A++	8.5
70-79	A+	8.0
60-69	A	7.0
55-59	B+	6.0
51-54	В	5.5
50-40	C	5.0
< Minimum Pass	U	0 (Reappear)
Absent	U	0 (AB)

## **Computation of Credit Points and Cumulative Grade Point Average (CGPA)**

• i. The CGPA is also calculated in the same manner taking into account all the courses undergone by a student over all the years of a program, i.e.,

$$CGPA = \Sigma(Ci \times Si) / \Sigma Ci$$

where, Si is the GPA of the year and Ci is the total number of credits in that year.

- ii. The CGPA shall be rounded off to 2 decimal points and reported in the transcripts
- Classification of Class based on CGPA

5.0 - 6.5	Second Class	
6.5 - 8.0	First Class	
8.0 and Above	First Class with Distinction	

#### 9.0 Attendance

- **9.1** Attendance shall not be less than 80% in theory and 90% in Clinical Practicum in the academic year for students to be eligible to appear for examination at the end of the year. Also should have 50% in the internal assessment of all the courses to be eligible to write the final examination.
- **9.2** Candidates who cannot appear for the examination for want of attendance will be declared failed and will have to repeat the entire program to be eligible to appear for the exams subsequently.
- 9.3 Candidate who is shortage of attendance in any one of the subjects will be detained for the subject and continue the next semester. He/She has to compensate the required attendance in the next semester and take the examination for the subject along with other subjects of that semester.
- 9.4 Condonation of shortage of attendance in genuine cases to a maximum of 10% which shall be approved by the Vice-Chancellor VMRF-DU.

## 10.0. Procedure for re-joining after break of study:

The candidate having availed a break of study between six months to five years shall apply for re-joining the program by remitting the stipulated fee for Condonation of break of study to the VMRF-DU through the Head of the Institution.

The Head of the Institution shall not permit any candidate with a break of study as stipulated above to re-join the programme without obtaining the prior permission from the authorities of the VMRF-DU.

#### 11.0 Examination Pattern

11.1 The examination pattern and papers shall be as shown in the table below:

Paper	Name of the paper	Univ,	Internal	Max
		marks	marks	marks
Paper- I	Neurobiology	80	20	100
Paper- II	Child development and learning	80	20	100
Paper-III	Assessment, Intervention and	80	20	100
	Evaluation			
Paper-IV	Therapeutics	80	20	100
Paper-V	Family and Community	80	20	100
Clinical	Case history and developmental	100	50	150
Practicum	assessments [Practical]			
-I				
Clinical	Therapeutics ,Assessment and	100	50	150
Practicum	Intervention Evaluation			
-II				
Clinical	Individualised Family Assessment	100	50	150
Practicum				
-III				
Clinical	Individualized Early Intervention	100	50	150
Practicum	Programming (IEIP) [Practical]			
-IV				
	Total	800	300	1100

#### **11.2** Course content shall be as in **Annexure** 1

## 11.3 Pattern of Question Paper – End of Year Examination

Theory	<b>Duration:3hours</b>
Essays (Answer 4 out of 5) (4 x 15)	60 marks
Short notes (Answer 4 out of 5) (4 x 5)	20 marks
Total	80 marks

#### **10.4 Internal Marks**

#### **Internal Marks for Each Theory: 20 Marks (Maximum)**

2 Assignments (Preparation and Presentation) X 5 Marks = 10 Marks

Two Tests X 5 Marks= 10 Marks

Total = 20 Marks

## **Internal Marks for Each Practical: 50 Marks (Maximum)**

Apparatus/Tools =20 Marks

Execution (Data Collection) = 10 Marks

Data Process and Submission of Report =20 Marks

Total = 50 Marks

**11.5** Clinical examinations shall be conducted by the designated one internal faculty and one external faculty at the end of the year.

#### 12. Criteria for passing

- 12.1 Candidates having  $\geq 80\%$  attendance (theory) and 90% (Clinical) and obtaining 50% marks in the theory, clinical practicum and internal assessments in each of the courses can alone qualify to appear for the end year examinations.
- 12.2 The student is required to obtain a minimum of 50% in each of the theory papers, internal assessment, and clinical practicum exams, for a pass.
- 12.3 Candidate who fails in the final examination has to appear for the particular theory subject / clinical practicum in the supplementary examination at the end of third month after the announcement of the results.
- 12.4 Maximum number of attempts for any paper / clinical practicum shall be three inclusive of first attempt. Beyond three attempts, approval from the Vice Chancellor of VMRF-DU has to be obtained.
- 12.5 The Course should be completed within two years from the commencement of the program.

### 13.0. Additional Tuition Fees

**13.1.** In-case of attending the program after the final examination the candidate has to pay the tuition fee for that year.

## 14.0. Award of Rank

Classes, ranks and medals shall be awarded based on final CGPA for candidates who pass in the first attempt only.

## 15.0. Award of Degree

The University shall award the degree after the candidates successfully complete all the examinations stipulated.

#### **Course Content**

## **Paper I: NEUROBIOLOGY**

No. of hrs.100 No. of marks:100

#### **OBJECTIVES:**

- 1. To understand the biological basis of developmental disabilities.
- 2. To identify the causes and risk factors, developmental disabilities and understanding their implication on development and their prevention aspects of disability.
- 3. To have knowledge the early indication of brain insult and characteristic features of developmental

disabilities for early identification.

## **UNIT I: Anatomy and Embryology of the Nervous system**

- Gross anatomy stages of development, Micro anatomy stages of development and Centres & pathways

## Unit II: Physiology and Maturation of the Nervous System

Neurons, synopsis, transmission, Myclination, Organization of brain, Cortical subcortical relay system, Processing of information (Fituation, organization, response, integration).

## **UNIT III: Functions of the Nervous System including special senses**

- Specific areas and functions Frontal, parietal, temporal, Occipital, Basalganglia, Cerebellum, Mid brain, Pins, Medulla oblongata, Autonomic neurosystem, Limbic System, Spinal cord, Spinal arc, Nervous system pathways.
- Special senses Vision, Audiotomy, Vestibular, Tactile, Proprioception and Kinaesthetic

## Unit IV: Determinants of risk factors and Developmental abnormalities

- Determinants of risk factors Preconceptual, Prenatal, Natal, Post natal and Psychosocial.
- Developmental abnormalities Structural abnormalities, Biochemical abnormalities and Behavioural abnormalities.
- Neuro habilitation concepts, theories, plasticity, imprinting, critical periods and Neuronal repair.

#### **Unit V: Neurofunctional indicators of early brain insults**

- Presenting symptoms - Epilepsy, sleep disturbance, level of activity, Clinical features and Investigative procedures - Genetic, Biochemical Pathology, Imaging techniques.

#### **Unit VI: Prevention of developmental disabilities**

- Prenatal, natal, post natal, Prevention including genetic counseling.

## Paper II: Child Development and Learning

No. of hrs.100 No. of marks:100

#### **OBJECTIVES:**

- 1. To equip with ability to apply theories of child development with emphasis on cognitive, motor, social, emotional and language development.
- 2. To understand a typical development and their implications on the development of the child.
- 3. To understand the influencing factors that affect child development.

#### **Unit I: Growth and Nutrition**

- Growth Principles of growth, Normal growth pattern, Growth monitoring, Factors influencing growth, and Health and child rearing practices.
- Nutrition Nutrition effect on growth, Nutrients, Feeding & wearing, Balanced diet and

## **UNIT II: Motor development and Sensory Perceptual development**

- Motor development Principles of motor development, Motor development in prone, supine sitting & standing, posture, tone, movement, joints, Gait, Fine motor development, Motor development for survival, protection and learning and Atypical development.
- Sensory Perceptual development Sensation, Perception and Specific sensory perceptual development.

## **UNIT III: Cognitive Development**

- Theories of cognitive development, influencing cognitive development. Stages of cognitive development and Factors

## **UNIT IV: Social and Emotional Development**

- Concepts and theories of social and emotional development.
- Mother child intervention, temperaments, attachment factors influencing social and emotional development.
- Sighs of emotional distress, child abuse and neglect.

## UNIT V: Speech language communication development

- Development of auditory behaviour, Definition and description of terms, Integrated framework for language development, Process of normal language acquisition, Language and Cognition.

## **UNIT VI: Child rearing**

- Safety management practices, nutrition and health practices, immunization, Home Environment, Implications of social and cultural practices.
- Implecations of medical conditions on child development medically frazile babies, childhood illnesses and diseases.

## Paper III: Assessment, Intervention and Evaluation

No. of hrs.100 No. of marks:100

#### **OBJECTIVES:**

- 1. To acquire the ability to assess children's cognitive, social, emotional, communication, motor development.
- 2. To acquire the ability to select and use a variety of assessment instruments/tools and procedures.
- 3. To acquire ability to diagnose and communicate to parents and families.
- 4. To acquire ability to develop, implement and evaluate individualized Early Intervention programme.

#### **Unit 1: Assessment**

- Introduction to Assessment Definition, purposes, methods of collecting data.
- Infonnal and fonnal assessment tools/instruments Nonn references, criterion referenced, curriculum referenced observational methods, family centrered assessment, Involving families as active participants in assessment progress.

- Introduction to assessment tools used in Early intervention, selection of assessment tools, administering and communicating assessment results.

## **Unit II: Individualised Early Intervention Programming**

- Development and implementation of the individualised early intervention programme (IEIP) and individual family service plan IFSP.
- Intervention strategies prompting and fading, modelling and imitation, demonstration, task analysis, shaping and chaining, reinforcement types of rein forcers, schedules of reinforcement, music and play activities, peer tutoring.

#### **Unit III: Evaluation**

- Definition of evaluation, difference between assessment and evaluation.
- Types of evaluation fonnative, summative.
- Programme monitoring, summerizing and evaluating the acquisition of child and family outcomes.

## **Paper: IV Therapeutics**

No. of marks:100

#### **OBJECTIVES:**

- 1. Identify deviations in specific areas of development.
- 2. To acquire ability to asses and communicate assessment results to parents and families.
- 3. To acquire ability to develop implement and evaluate Individualized therapeutic programme.
- 4. Identify appliances/assistive devices.

## Part: A Physio therapy

## Unit I: Concepts, theories, Assessment and Intervention

- Concpets, theories, principles in physiotherapy.
- Examination of motor system and determining need for therapy.
- Identifying therapeutic goals, techniques of intervention, methods of evaluation & record
- keeping.
- Intervention for multiple handicaps.
- -Use of aids and appliances.
- Intervention for multiple handicaps

#### Unit II: Recent trends and issues.

- Organization of services (urban, rural), Multidisciplinary teamwork, Available resources and utilization, Social adaptations (culture appropriate).

## Part B: Occupational Therapy

## Unit I: Concepts, theories, assessment and intervention

- Physiological frame of reference, Cognitive frame of reference, Psycho dynamic frame of reference and Humanist frame of reference.
- Performance components, Sensory processing, Motor performance (Posture, hand function, etc.), Occupational components, Breathing, Feeding and Play.
- Determining need for therapy, Setting therapy goals, Selecting techniques and Identifying appliances / assistive devices
- Intervention strategies- Sensory integration- posture, positioning, breathing, feeding,

eating, sensory perception and Intervention for multiple handicaps.

- Methods of evaluation and record keeping.

#### **Unit II: Recent trends and issues:**

- Organization of services, Multidisciplinary team, Available resources & utilization and local adaptations (culture appropriate).

## Part C - Speech, Language and Communication

## Unit I: Theories, concepts, assessment and evaluation

- Orientation to common auditory disorders in children identification & screening of hearing loss in children, referral process, basic hearing aid usage, auditory training
- Language and Communication problems association with motor disorders, sesnsory deficits, CNS dysfunction, cognitiv~ disorders, etc.
- Assessment, intervention and evaluation.
- Initial & ongoing assessments strategies, linking assessment and intervention, multi axial procedure, descriptive Proforma, communicating assessment details to other professionals, etc.
- Infants at-risk general readiness, reciprocal actions, socio-communicative signals, early comprehension, early production, prevention of rhythm & voice disorders, etc.
- Language and communication intervention philosophy in intervention, nature of disorders and different method of classification of children, theoretical bases of intervention model, principles, content, context, procedures.
- Writing up a programme & follow-up, inter-professional communication.
- philosophy in intervention, nature of disorders & different methods of classification of children, theoretical basis of intervention model, principles content, context, procedures. Strategies linking assessment & intervention, multiaxical procedure, descriptive proforma, communicating assessment, details to other professionals, Writing up a program & follow up and inter professional communication.

#### Unit II: Recent trends & issues

- Organization of services, Multidisciplinary team work, Available resources & utilization. Local adaptations and Research.

## Paper V: Family and Community

No. of hrs.100 No. of marks:100

## **OBJECTIVES:**

- 1. To understand family systems, dynamics, roles and relationships within family and community.
- 2. To assist families to identify either resources, priorities and concerns in relation to child's department
- 3. To acquire competency to evaluate services with families
- 4. To acquire ability to design process and strategies that support transition

## **Unit: I Parents and family**

- Inference of a child with developmental delays on family.
- Inferencing factors, parental attitudes, parent child interactions, self-esteem, parental stress and depression, parent training programmes, parent to parent support programmes.
- Family system, Family firectioning, family support, family resources, Family strengths,
- family needs and family coping and adaptive mechanism.

#### **Unit II: Community**

- Role of community in the field of Community culture, values and attitudes.
- Community awareness programs, Linkages of EI to other community program.
- Working in collaboration with other professionals and agencies, inter agencies and referral in larger community.

## **Unit III: Organizing early intervention services**

- Service delivery models/settings, functions of team.
- Oganization and development of program in the community.
- Establishing linkages with pre-school based on development and leaving experiences and teaching strategy.

#### **PRACTICALS**

## **PAPER 1: Case History Taking and Developmental Assessment**

No. of hrs.200 No. of marks: 150

## **Objectives:**

At the end of the year the student is expected to

- Take case history in an infant and toddler
- Assess using developmental scale and to communicate the assessment results to parents and family.

#### **Procedure:**

Detailed case history of children below 3 years in 3 cases.

Developmental assessment in 2 cases in the age range of 0-3 years.

## **Paper II: Therapeutics**

No. of hrs.200

No.ofmarks:150

#### **Objectives:**

At the end of the year the student is expected to:

- Assess and plan. an appropriate in the areas of physiotherapy, occupational therapy, speech language and communication.
- Evaluate the outcome of intervention and submit the report.

#### **Procedure:**

- students will be given orientation on assessment in all therapies (PT, OT, ST)
- students will assess infants and toddlers under supervision and plan for remediation programme.

At the end of practicals the students will make submissions of 6 case records

- 2 cases for physiotherapy,
- 2 cases for occupational therapy
- 2 cases for speech, language and communication.

#### Paper III: Individualised Family Assessment

No. of hrs.200 No. of marks: 150

### **Objectives:**

At the end of the year the student is expected to:

- assess the families of infants and toddlers using family assessment checklist.

#### **Procedure:**

- the students are expected to make home visits and assess individual families
- submit the assessment report with planning the intervention programme of 2 cases of infants and toddlers

### Paper IV: Individualised Early Intervention Programme (IEIP)

No. of hrs.200 No. of marks: 150

#### **Objectives:**

At the end of the year the student is expected to:

- carry out comprehensive assessment of the child and family and write the assessment reports
- plan and implement individualised early intervention programme.
- Evaluation of the IEIP

#### **Procedure:**

- comprehensive assessment of child and family
- writing the assessment report and communicating assessment results to the family
- planning and implementing IEIP
- evaluating IEIP and documenting the results and presentation of cases
- submission of records of 4 cases

#### FORMAT FOR IMPARTING TRAINING

## Theory classes

For imparting the training, theory classes will be conducted every day from Monday to Thursday from 2 to 5 pm. On Fridays there will be total of 7 lecture hours from 9 AM to 5 PM with one hour lunch break from 1 to 2 pm.

#### **Practical classes**

Practical classes will be conducted everyday from Monday to Thursday from 9 am to 1 pm (4 hours per day)

## **REFERENCES**

## Paper I

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- 2. Arthur C., Guyton (1987) Human Physiology and Mechanisms of disease, Fourth Ed., London; W.B.Saunders Co.
- 3. Frank lMenolascino, Jack A Stark (1988), Preventive and Curative intervention in Mental Retardation. Sydney: Brookes Publishing Co.
- 4. J.A.Fraser Roberts (1985), Introduction to Medical Genetics, ELBS/Oxford

University Press.

- 5. Abraham.M., Rudolph (1991) Text book of Pediatrics, 19th Ed., Prentice Hall Interna- tional Inc.
- 6. Mark L.Btshaw (1993) The child with Developmental disabilities. The Pediatric Clinics of North America. New York: WB Saunders.
- 7. Singh, Inderbir (1991) Text book of Human, Neuro-anatomy (4 Ed.) New Delhi: Jaypee Brothers.

## Paper II

Publishing House.

## Paper III

- 1. Appropriate curriculum and assessments for young children (pp. 128-136). Washington, DC: National Association for the Education of Young *Childre*~.
- 2. Serving Children from birth through age 8. Washington, DC: National Association for the Education of Young Children.
- 3. Bredekamp, S. & Rosegrant, T. (Eds.). (1992). Reaching potentials: Appropriate curriculum and assessment for young children. Washington, DC: National Association for the Edu-cation of Young children.
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- 7. Deiner, P.L.(1983). Resources for teaching young children with special Needs. New York: Har Court Brace Joranovich.

## Paper-IV

## Physiotherapy:

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- 2. Ada, L. & Canning, C. (Eds.) (I990) Physically handicapped children. An atlas for teach- ers. New York: Grune & Stratton.
- 3. Campbell, S.K. (199 I) Pediatrics neurologic physical therapy. New York: Churchill Livingstone.
- 4. Finnie, N.R. (1987) Handling the young cerebral palsied child at home (US Edition). New Yark: Penguin Books USA Inc.
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- 7. Thomson, A., Skinner, A. & Piercy J. (199.1) Tidy's physiotherapy (Twelfth edition). Oxford: Butterworth Heinemann Ltd.

## **Speech therapy References:**

- 8. Northern JL & Downs MP (1984) Hearing in children, Williams & Wilkins, London.
- 9. Lass NJ et al, (1982) Speech, Language & Hearing. Volume 1: Normal processes, WB Sanders, London.
- 10. Mc Cormick L & Schiefelbusch RL (1984) Early language intervention, an introduction, Charles E Merrill, London.
- 11. Reich PA (1986) Language development, Prentice Hall, New Jersy.
- 12. Border OJ et al (1994) Speech science primer (3rd ed), Cambridge University press, Cambridge.
- 13. Normore RC & Hopper R (1992) Children learning language (3rd ed), Singular publishing, London.
- 14. Beech JR et al (1993) Assessment in speech language therapy, Roultedge, London
- 15. Leahy MM (1989) Disorders of communication, the science of introduction, Whurr Pub, London.
- 16. Brown BB Edwards M (1989) Developmental disorders of language, Whurr Pub. London
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- 18. Manolson A (1992) It takes two to talk, A Hannen Centre Publication. Toronto.

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- 2. Fisher, Anne C, Elizabeth A. Murray, and Anita C.Bundy, 1991, Sensory integration theory and practice, Philadelphia: F.A.Davis.
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- 6. Ward, D.Positioning the Handicapped Child, Chicago, Phoerise Press, (1984).
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- 8. A Parents guide to understanding sensory integration, (1991), Torrance, CA: Sensory Integration International.
- 9. Clayman, C.{Ed.), (1995). The Human Body: Mf illustrated guide to its structure, functions, and disorders, New York: Dorling kindersley.
- 10. Kooman, T.&'Fridman, B. (1992). The Hidden senses: Your Balance Seree, Rockville. The American Occupational Therapy Association.
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### Paper V

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