

**DIPLOMA COURSE IN HEARING, LANGUAGE AND SPEECH
(DHLS)**

COURSE CURRICULUM

REHABILITATION COUNCIL OF INDIA
(Statutory Body under the Ministry of Social Justice and Empowerment)
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NOMENCLATURE: DIPLOMA COURSE IN HEARING, LANGUAGE & SPEECH (DHLS)

OBJECTIVES

This course is aimed at training lower level functionaries in the area of hearing, language and speech. The course is designed as a comprehensive and practical oriented programme. The main objective of the course is to generate Speech and Hearing Technicians to take up routine clinical work of assessment and therapeutic management for various speech, language and hearing disorders at village, block/taluka and town levels. Wherever possible they will work under the guidance of a fully trained graduate or a postgraduate Speech & Hearing clinician. However, in the absence of such trained personnel they will be able to execute the routine clinical services. They will be ideally suited to work at district level and below levels, rural health centres, special schools for spastics, schools for the mentally retarded and school for the deaf. They can be included as trained Rehabilitation personnel under State/Central health care and/or rehabilitation systems. They shall be designated as “Speech and Hearing Technicians”. They may also find openings in hearing aid and other instrument manufacturing/dispensing centres. The course enables the candidates after completion of the course to be self employed. The course provides base for gaining lateral entry into the BASLP equivalent program.

DURATION OF THE PROGRAMME: One academic year consisting of 10 working months excluding examination days.

ENTRY REQUIREMENTS

Education: 10 + 2 pass or its equivalent pass with Physics, Chemistry, Biology, & Mathematics.

Age: Minimum 17 Years.

MEDIUM OF INSTRUCTION : Hindi/English /regional languages

COURSE CONTENT: As given in the syllabus. Approximately forty per cent of total number of working hours shall be for teaching theory and the remaining 60% on practicals & clinical work.

MODE OF TEACHING: This is a practically oriented programme. The mode of teaching will be in the form of classroom lectures / demonstrations, virtual classes through distance mode supplemented by handouts, manuals, brochures, checklists, proformae, audio-visuals with supervised clinical practice.

MINIMUM REQUIREMENTS OF STAFF

Designation	No. of posts	Minimum Qualification
Lecturer – Audiology / speech – Language Pathology	2	MASLP/M.Sc. (Sp. & Hg.)/ BASLP/B.Sc. (Sp. & Hg.)
Visiting Staff		
Psychologist	1	Clinical/Rehabilitation Psychologist registered with RCI
Special Education Teacher	1	Dip. in Special Education (HI and/or MR)

MINIMUM REQUIREMENTS OF SPACE

1.	Class Room	1	20' X 15'
2.	Audiometric Room	1	10' X 10' (Inner) 10' X 6' (Outer)
3.	Staff Room/Office	1	10' X 15'
4.	Individual Therapy rooms	2	10' X 8'
5.	Group Therapy Rooms	1	20' X 15'
6.	Ear Mould Lab/ Cum- Hearing aid workshop.	1	20' X 15'
7.	Library	1	20' X 15'

EQUIPMENT/MATERIAL

1. Audiometer
2. Hearing Aids (Of all makes & models)
3. Ear Mould Lab
4. Speech Trainer
5. Hearing Aid Repair Kit
6. Group Hearing Aids
7. Sound Recorders with CDs and Cassettes
8. Material for therapeutic use such as toys & play materials, toys for informal screening such as bells and noise making toys
9. Material for auditory training
10. Model of the Ear.
11. Model of the Larynx

LIBRARY: As per references given at the end of each paper

SCHEME OF CURRICULUM FOR DIPLOMA COURSE IN HEARING, LANGUAGE AND SPEECH (DHLS).

Internal Assessment and Final Examination.

Paper Subject (Theory)	IA Marks	EA Marks	Total	Exam Duration	Total Hrs (per year)
I Introduction to Audiology	40	60	100	3 hrs.	100
II Introduction to Speech & Language Pathology	40	60	100	3 hrs.	100
III Basic Medical Sciences Related to Speech & Hearing	30	45	75	2 hrs.	75
IV Psychology	30	45	75	2 hrs.	75
V Community Based Rehabilitation	40	60	100	3 hrs.	100
VI Education for Children with Special Needs	40	60	100	3 hrs.	100
TOTAL	220	330	550		550
Annual Work					
Subject (Practical)					
Audiology	75	-	75		125
Speech & Language Pathology	75	-	75		125
Clinical Psychology	75	-	75		125
Education for Children with Special Needs	75	-	75		125
*Final Viva (Practical)					
Audiology		75	75		125
Speech & Language Pathology		75	75		125
TOTAL	300	150	450		750
GRAND TOTAL	520	480	1000		1300

*Final viva for Audiology and Speech & Language Pathology will be conducted by the External and Internal Examiners together. Annual Work to be evaluated by the Institutes internally.

MINIMUM FOR PASS AND CLASSIFICATION OF SUCCESSFUL CANDIDATES

As per Scheme of Examinations of RCI.

EXAMINATION REGULATIONS : As per Scheme of Examinations of RCI.

Paper I - Audiology

100 Hrs

Unit 1: Sound and Hearing	20 Hrs
<ul style="list-style-type: none">• Definition of sound• Generation and transmission of sound• Physical and psychological attributes of sound• Range of human hearing• Structure of the ear, different parts of the ear• Age-wise behavioural responses to sound• Description of hearing• Functions of hearing, role of hearing in learning	
Unit 2: Hearing loss	20 Hrs
<ul style="list-style-type: none">• Definition and meaning of hearing loss• Causes and types of hearing loss• Effects of hearing loss• Signs & symptoms of hearing loss• Prevention of hearing loss• Early identification and its importance• Associated problems	
Unit 3: Evaluation of hearing	20 Hrs
<ul style="list-style-type: none">• Methods of testing hearing, tuning fork, audiometry, parts of an audiometer, audiogram• Procedure for obtaining an audiogram, different types of audiograms• Factors that affect hearing evaluation• Informal testing, methods of screening and different conditions for hearing testing, use of different stimuli in rural set/ups.• Care and maintenance of equipment, preparation and maintenance of check list• List of equipment, specifications for the same	
Unit 4: Hearing aids & earmolds	20 Hrs
<ul style="list-style-type: none">• Definition of hearing aid• Need for a hearing aid• Different parts of a hearing aid• Different types of hearing aids• Earmold, role of earmold, making custom earmolds• Selection of conventional hearing aids	
Unit 5: Counseling on use, trouble shooting and rehabilitation	20 Hrs
<ul style="list-style-type: none">• Use, care and maintenance of hearing aid• Trouble shooting and minor repairs of hearing aids• Counselling –<ol style="list-style-type: none">a. On hearing aid acceptance, use and careb. On auditory learningc. On speech and language interventiond. Home training• Role of Speech and Hearing technician in relation to the school for the deaf/retarded, special schools for spastics speech and hearing units and centres, other rehabilitation	

centres, P.H.Cs.

- Organization of community awareness programmes, exhibition and selecting the materials required, parent meeting. Team approach and role of speech and hearing technician in the team.
- Early identification, Therapy and follow up
- Government schemes available for the welfare of the handicapped
- List of addresses for referral points

References

Martin, F.N. (1994). Introduction to Audiology. V ed. NJ: Prentice Hall

Newby, H.A. & Popelka, G.R. (1992). Audiology. VI ed. NY: Appleton Century crofts

Yathiraj, A. (2007). Self-Learning Material for Diploma in Hearing, Language and Speech. Course I. Audiology, Mysore; All India Institute of Speech and Hearing.

Paper II - Speech & Language Pathology

100 Hours

Unit 1: Introduction to communication, language & speech

20 Hrs

- Definitions of communication, language & speech
- Interrelation between speech, language & hearing
- Prerequisites of communication: speaker, listener, speech chain
- Functions of communication
- Types of language: Non-verbal: signs, symbols, gesture. Verbal: speech
- Parameters of language: orientation to phonology, semantics, syntax & pragmatics
- Parameters of Speech: voice, articulation, fluency, prosody
 - Voice: pitch, loudness, quality;
 - Fluency: rate, continuity, effort;
 - Prosody: stress, intonation & rhythm

Unit 2: Speech mechanism & speech production

20 Hrs

- Structure and functions of the speech mechanism
 - Nervous system
 - Respiratory system
 - Phonatory system
 - Resonatory system
 - Articulatory system
- Description of the speech sounds
 - Voicing
 - Manner of articulation
 - Place of articulation

Unit 3: Acquisition/ Development of Language and speech

20 Hrs

- Characteristics of normal speech & language and communication
- Stages in the development of language and the important milestones
- Stages in the acquisition of speech sounds/ phonology & important milestones
- Development of communication
- Factors affecting the acquisition of speech, language & communication

Unit 4: Disorders of speech and language

20 Hrs

- Classification of the disorders
- Disorders of language: general behaviours, language characteristics: expressive & receptive
 - Mental retardation
 - Autism
 - Cerebral palsy
 - Childhood aphasia
 - Attention Deficit disorder

- Disorders of speech: general characteristics, symptoms
 - Disorders of voice: pitch, quality
 - Disorders of articulation: structural, neurological, environmental
 - Disorders of fluency: NNF, stuttering, neurogenic stuttering, cluttering

Unit 5: Prevention and Early identification of communication disorders

20 Hrs

- Definition, Types of prevention
- General preventive measures
- Checklist/ Tools for prevention and Early identification of communication disorders
- Guidance to parents
- Screening tools/ High Risk Register

References

Anitha. T. (2001). *Modified high risk registers (HRR) for professionals and non professionals formulation and its efficacy*. Available at AIISH, Mysore.

RCI (2003). *Disability Status India*. RCI House, New Delhi.

Shyamala, K. C., & Savithri, S. R. (2007). *SLM for DHLS: Course II-Speech Language Pathology*, AIISH, Mysore

Jayaram, M. and Savithri, S.R. (2000). *Fluency Disorders – ISHA monograph*.

Manual for training of PHC medical officers. RCI. New Delhi. 2001.

Shyamala. K. C. (1991). *Speech and Language behaviors of the cerebral palsied*. Central Institute of Indian Languages, Mysore.

Shyamala. K. C., (1986). *Speech disorders in children*. IED Cell, Directorate of Education, Andaman and Nicobar Islands, Port Blair.

Shyamala. K.C. (1993) *Speech Problems in ES-104, Guiding socio-emotional development of children – 2. Dealing with special problems*. School of Education, IGNOU.

PAPER III - Basic Medical Sciences related to Speech & Hearing

75 Hrs

Unit 1

15 Hrs

- (a) General *introduction*, definitions. Coronal / saggital / plane) Planes. Definition of anatomy, morphology, physiology, histology, embryology.
- (b) Definition of Cell and organelles, tissue, organ system, specialized tissues like nervous tissue, vascular tissue, muscle and bone tissue.
- (c) Nervous system: Definition of neuron, synapse, reflex action, bio electrical phenomena, action potential, depolarisation, division and functions of the nervous system, brain – general lobes, reticular formations, basal ganglia, cerebellum, circle of willis, cranial nerves, spinal cord, CSF – formation & flow.
- (d) Circulatory system: Definition of capillaries, arteries, veins, cardiac cycle, blood brain barrier, aneurysm, vascular shock – its reference to aphasia / speech disorders.
- (e) Respiratory system: General outline, detailed study of trachea, larynx and nasopharynx, mechanism of respiration – internal and external influence, nervous control – vital capacity – tidal volume, residual air, artificial respiration (in brief).

Unit 2

15 Hrs.

- (a) Definition of inflammation, infection, tumor – benign & malignant, tissue healing.
- (b) Genetics :introduction – structure of DNA and RNA, karyotyping, family tree (pedigree chart), symbolic representation , inheritance, autosomal dominant, autosomal recessive, sex chromosomal disorders, structural aberrations, mutation (in brief).
- (c) Endocrine system : Definition of hormone, functions of thyroid hormone, growth hormone, androgen, testosterone and its influence in voice disorders.

Unit 3

15 Hrs

- (a) Anatomy & Physiology of external, middle & inner ear, auditory pathways, vestibular pathway. Diseases of the external middle and inner ear leading to hearing loss: Congenital malformations, traumatic lesions, infections, management of middle ear and Eustachian tube disorders.
- (b) Other causes of hearing loss – Facial paralysis, Tumors of the cerebello- pontine angle, Acoustic neuroma. Infection and management of inner ear diseases. Cochleo-vestibular diseases and its management.

Unit 4

15 Hrs.

- (a) Anatomy & Physiology of pharynx & oro-peripheral structures

Causes of speech disorder, Disorders of the mouth, Tumors of the jaw and oral cavity, nasopharynx and pharynx, pharyngitis, Diseases of tonsils and adenoids.

- (b) Oesophageal conditions: Congenital abnormality – Atresia, Tracheo-oesophageal fistula, Stenosis, Short oesophagus. Neoplasm – Benign, Malignant, Lesions of the oral articulatory structures like cleft lip, cleft palate, submucosal cleft, Velopharyngeal incompetence.

Unit 5

15 Hrs.

- (a) Anatomy & Physiology of larynx – physiology of phonation / physiology of respiration.
- (b) Congenital diseases of the larynx – difference between an infant and an adult larynx. Stridor – causes of infantile stridor. Disorders of structure – Laryngomalacia, Bifid epiglottis, Laryngeal web, Atresia, fistula, Laryngeal cleft, Tumors and Cysts, Laryngitis, Laryngeal trauma and Stenosis. Neuromuscular dysfunctions of the larynx – Vocal cord palsy, Spastic dysphonia, Hypothyroidism, gastro oesophageal reflux disorders, Laryngectomy, artificial larynx, oesophageal speech, tracheo oesophageal puncture.

References

- 1) Singh, I. (1996). Textbook of Anatomy with Color Atlas, Vol. III Jaypee Brothers.
- 2) Zemlin, W.R. (1981). Speech and Hearing Science: Anatomy and Physiology, (2nd Ed.). Englewood Cliffs, New Jersey: Prentice Hall.
- 3) Alper, C.M., Myers, E.N., Eibling, D.E. (2001). Decision making in ear, nose & throat disorders. W.B. Saunders Company, Philadelphia.
- 4) Dhingra, P.L. (1992). Diseases of Ear, Nose & Throat. Churchill Livingstone, New Delhi.
- 5) Graym R.F., Hawthorne, M. (1992). Synopsis of Otolaryngology. Butterworth Heinemann Ltd, Oxford. 5th Edition.
- 6) Ramalingam, K.K., Sreeramamoorthy, B. (1990). A short practice of Otolaryngology. A.I.T.B.S. Publishers Distributors.
- 7) Scott-Brown, W.G., Ballantyne, J., Groves, J. Diseases of the nose & throat. Butterworth & Co., Ltd. 2nd edition, Chichester.
- 8) Inderbeer Singh (1996) – Text book of embryology.

Paper IV – Psychology

75 hrs

1. Meaning and definition of psychology - relevance to speech, hearing and language. Child development: motor, emotional, cognitive - intellectual and social, stages & relevance. 15 Hrs
2. Mental retardation: definition, causes, assessment and psycho/social and educational implications. Developmental skills - helping the child acquire age appropriate developmental skills. Psychological problems associated with speech and hearing disorders - temper tantrum, hyperactive behaviour, withdrawal tendency, aggressive behaviour, neuroses like phobia, autistic behaviour. 15 Hrs.
3. Psychological testing - aims, factors affecting testing, developmental schedules, IQ test and their importance. 15 Hrs.
4. Attitude of parents and of the client towards handicap and rehabilitation procedures. 15 Hrs.
5. Behaviour therapy and play therapy. 15 Hrs.

References

- Hurlock, E.B. (1981). *Developmental Psychology: A Life Span Approach*. New Delhi: Tata McGraw Hill.
- Kuppuswamy, B. (2002). *An Introduction to Social Psychology*. Mumbai: India Printing Works.
- Mussen, P. (1969). *Psychological Development of the Child*. New Delhi: Prentice Hall.
- Panda, K.C. (1993). *Elements of Child Development*. New Delhi: Kalyani Publishers.
- Parameswaran, E.G., and Beena, C. (2002). *An Invitation to Psychology*. New Delhi: Neelakamal Publishers.
- Peshawaria, R., and Venkatesan, S. (1992). *Behavior Approaches to Teaching Children with Mental Retardation*. Secunderabad: National Institute for the Mentally Handicapped.
- Peshawaria, R., and Venkatesan, S. (1992). *Behavior Assessment Scales for Indian Children with Mental Retardation*. Secunderabad: National Institute for the Mentally Handicapped.
- Rai, B.C. (1974). *Social Psychology*. Lucknow: Prakashan Kendra.
- Sandhya, K.P. (2003). *General Psychology*. New Delhi: Anmol.
- Sharma, P. (1995). *Basics of Development and Growth of Child*. New Delhi: Reliance Publishing House.

Venkatesan, S. (2003). Toy Kit for Kids with Developmental Disabilities: User Manual. Mysore: All India Institute of Speech and Hearing.

Venkatesan, S. (2007). Children with Developmental Disabilities: A Training Guide for Parents, Teachers and Caregivers. New Delhi: Sage Publications

Paper V - Community Based Rehabilitation

100 Hrs.

Unit 1 – Assessment of communication disorders

20 Hrs

- Case history - Importance of case history, Procedure for obtaining case history, Methods of gathering information, Specific information to be collected w.r.t various disorders, Relevance of information to be included in case history, Identification, history and description of problem, Counter check of information gathered, Do's and Don'ts while taking case history
- Arriving at provisional diagnosis by collecting and collating different information, Measures to be taken when contradictory findings are found
- Making appropriate referrals to other relevant professionals, Ways of referral- reporting & requesting and informing parents/caregivers on diagnosis and prognosis.
- Role of observation therapy in diagnosis and prognosis

Unit 2- Management of communication disorders

20 Hrs

- Team approach, Members of the Team: speech and hearing professionals, medical specialists, psychologists, special educators, regular school teachers, social workers, village leader and prospective employer/ institutions, Details of other referral points, Role of speech & hearing technicians in the team.
- Bases of speech & language therapy and hearing intervention-common procedures in therapy
- Planning speech therapy programme for articulation, voice, fluency, language Deviations and delays (including material and instruments needed), Implications and impact of hearing loss /mental retardation/ cerebral palsy
- Analysing needs of the patients, planning short term and long term goals, activities & teaching aids for therapy, assessing progress, Recognizing small changes in progress
- Imparting guidelines to the parents for practice of activities at home, Training parents as equal partners, Importance of speech and language stimulation

- Reinforcers, methods of reinforcement
- Tips on parent counseling and guidance

Unit 3 - Auditory training & speech reading

20 Hrs

- Acceptance of hearing aid by self and family
- Auditory training- need and its importance. General principles, steps in auditory training, Materials needed, Assessment of auditory performance, factors affecting auditory training- age of the child, type of hearing loss, intensity of stimuli and others. Methods of recording auditory response and progress, Games and activities for individual and group auditory training.
- Speech reading, General principles, Methods of speech reading, Speech reading, cued speech, activities for speech reading in day to day communication, Specific planning for speech reading lessons, Factors (environment, speaker, language reader) affecting speech reading.

Unit 4 - Unit 4 - Non/verbal communication

20 Hrs

- Augmentative and alternative communication (AAC)- Definition
- Types of AAC:
 - Aided- Definition and types of symbols with examples (objects, pictures, orthography, blissymbols), Low technology (communication boards, communication wallets, communication books & others) and high technology aids (few softwares), Dedicated and Nondedicated systems, Adaptation of aided systems to individual needs.
 - Unaided- Definition and types of symbols with examples (manual signs, pantomime, gestures, facial expressions), Introduction to sign languages: Finger spelling & basic vocabulary in American Sign Language, Indian Sign Language – basic vocabulary.
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Unit 5: Record keeping

20 Hrs

Different records (administrative and clinical) to be maintained, Documentation of diagnostic, clinical & referral reports.

References

- Rehabilitation Council of India (2006). Diploma in Special Education (HI) manuals. Delhi; Kanishka Publishers.
- Subbarao, T.A. (1992). Manual on developing communication skills. Secunderabad; NIMH.
- Subbarao, T.A. (2003). A utility guide to the parents on training in communication skills. Secunderabad; NIMH.
- Manjula, R & Jayaram, M (2004). *Proceedings of the Continuing Education Program on Augmentative and Alternative Communication*. AIISH: Mysore.
- Savithri, S. R. & Yathiraj A. (2007). SLM for DHLS: Course IV-Therapeutic Management, AIISH, Mysore
- Hegde, M. N. (1996). *Pocket guide to treatment in Speech-Language Pathology*. San Diego. London: singular Publishing Group, Inc.
- Jyothi, N. (2004). AAC – Issues in the determination of candidacy and issues in intervention. In M. Jayaram & R. Manjula (Eds.). *Proceedings of the Continuing Education Program on Augmentative and alternative communication*. AIISH: Mysore.

Paper VI - Education for Children with Special Needs

100 Hours

1. Introduction to Education of Children with Communication Disorders 20 Hrs.
 - Introduction to education
 - Education of children with special needs
 - Educational problems faced by children with
 - Hearing impairment
 - Mental retardation
 - Other communication disorders
 - Approaches in teaching language to children with communication disorders
 - verbal approaches
 - natural and structured methods
 - unisensory and multisensory methods
 - non-verbal approaches
 - Selection of appropriate communicational approaches for children with communication disorders

2. Educational Programmes for Children with Communication Disorders 20 Hrs.
 - Preparatory training
 - Parent-Infant Programme
 - Early Stimulation Programme
 - Mothers' Training Programme
 - Preschool Programme
 - Types of Educational Set-ups
 - Mainstreaming – inclusive and integrated education
 - Segregation: Special day classes, special day schools and special residential schools
 - Selection of appropriate educational set-ups for children with communication disorders
 - Measures to facilitate mainstreaming of children with communication disorders – like organising resource room facilities
 - Programmes and schemes for promoting mainstreaming of children with communication disorders – IEDC, DPEP, IEYCD

3. Curricular Development / Adaptation & Instruction for Children with Communication Disorders 20 Hrs.
 - Identifying specific educational goals, and planning / implementing individualized educational programmes
 - Teaching curricular subjects (other than language) to children with communication disorders
 - Parental participation in the educational process through home training

4. Preparation / Use of Teaching Aids and Language Workbooks 20 Hrs.
 - Teaching aids – Need, uses and types
 - Language workbooks – contents, uses and advantages
 - Linking language workbooks with other teaching aids

5. Role of Speech and Hearing Technicians in Education / Training in Children with Communication Disorders 20 Hrs.
- Role of speech and hearing technicians in different settings
 - Facilities for children with MR
 - Facilities for children with HI
 - Facilities for children with CP
 - Role in identifying and guiding them for appropriate vocations

References:

Yathiraj, A. (2007). *Self-Learning Materials for DHLS: Course V – Education*. Mysore: AIISH.

Lokananda Reddy, G., Ramar, R. & Kusuma, A. (2004). *Hearing Impairment: An Educational Consideration*. New Delhi: Discovery Publishing House.

Pincus, A. R. H. (2005). 'Teaching Tips: What's a Teacher To Do? Navigating the Worksheet Curriculum'. *Reading Teacher*, 59(1), 75-79.

Stewart, D. A. and Kluwin, T. N. (2001). *Teaching Deaf and Hard of Hearing Students: Content and Strategies and Curriculum*. Boston: Allyn and Bacon.

Rehabilitation Council of India (2006). *Diploma in Special Education (Hearing Impairment) Manuals*. Delhi: Kanishka Publishers.

MPBOU (). *Self-Instruction Materials for B.Ed.(HI) Course*. Bhopal: MP Bhoj Open University.

Subba Rao, T. A. (1992). *Manual on Developing Communication Skills*. Secunderabad: NIMH.

Subba Rao, T. A. (2003). *Utility Guide to Parents on Training in Communication Skills*. Secunderabad: NIMH.

PRACTICUM

Audiology

FIRST TERM

1. Demonstrating parts and functions of Pure tone audiometer and its controls. Familiarizing in handling different audiometers. Familiarizing hand held auditory screeners and screening procedures.
2. Step wise demonstration of Pure tone audiometric procedure and practice to students.
 - a. Examination of ear for wax, foreign body and material.
 - b. Testing normal ears under supervision
 - c. Clinical practicum under supervision
 - d. Reviewing already taken audiograms and interpreting them.
 - e. Audiograms of 6 adult cases of different types of hearing loss. To maintain records of the same and submit it at the end of the second term. Each student should obtain records for different cases.
3. Methods of testing children — Behaviour observation and Conditioning for Audiometry
4. Biological calibration of audiometer.
5. Informal testing methods under supervision. Type of responses. How to look for their reliability?
6. To maintain record from case history to audiogram for six children and submit it by the end of second term. Each student should have independent case reports.
7. Hearing Aids:
Identification of different types of:
 - (a) Hearing aids
 - (b) Different parts of a hearing aid, fault finding and minor repair
 - (c) Group hearing aids & their parts
 - (d) Assembling group hearing aids.
8. Ear moulds:
 - a. Observation of impression taking
 - b. Impression taking on normal ears
 - c. Plaster casting with and without flask

SECOND TERM

1. To continue minor repairs of hearing aid.
2. To learn making of custom made full moulds under supervision and later continue to learn to take impression & make moulds for children independently. To make six pairs of mould, three pairs for adults and three pairs for children. Produce it for clinical valuation at the end of term.
3. Hearing aid trial and selection for adults and children. Maintain records of six clients, three children and three adults.
4. To maintain the following records with special relevance to rural set up:
 - a) Complete record of history of clients tested to hearing aid selection for both adults (3 clients) and children (3 clients) and follow up requirements.
 - b) High risk records and plan for follow up.
 - c) Record of hearing aid repair.
 - d) Record of Ear mould.
5. Counselling
 - a. Accepting the hearing problem
 - b. Preparing parents for accepting a hearing aid.
 - c. Encourage the child to use the hearing aid.
 - d. Do's and don'ts of hearing aid use.
6. Auditory training:
 - a. Steps in auditory training.
 - b. Conditioning on Audio-visual Stimuli and Auditory Stimuli only.
 - c. Demonstration of group hearing aid and induction loop systems, connecting, dismantling, and trouble shooting and minor repairs of the same.
 - d. Individual auditory/speech trainer.
 - e. Preparing lesson plans with short and long term goals for the same.
 - f. Preparing the students on understanding auditory environment where client lives and selecting auditory stimuli accordingly.
 - g. Creating awareness of selected auditory stimuli
 - h. Providing training on auditory discrimination.
 - i. Help in developing auditory identification and closure

- j. Strategies for assessing improvement.
- k. Report writing and referral.

Speech and Language Pathology

FIRST TERM

1.
 - (a) Observation of case history — general and specific to speech and language disorders.
 - (b) Observation of Speech and Language evaluation.
 - (c) Observation of Therapy Programs
 - (d) Recording observation
2.
 - (a) Demonstration with recordings : normal aspects of pitch, loudness, normal and abnormal voice quality.
 - (b) Demonstration: Place and manner of articulation
 - (c) Demonstration using recorded tapes, rhythm, rate intonation in speech.
3.
 - (a) Familiarity with speech samples of various speech disorders.
 - (b) Practice in identifying different speech disorders from recorded samples and cases.
4. Appraisal of :
 - i. Voice
 - ii. Articulation
 - iii. Fluency
 - iv. Intelligibility
 - v. Language
 - vi. Suprasegmentals
5. Report writing and writing of referral notes to other professionals.
6. Demonstration of therapeutic procedure with:
 - i. Hearing impairment
 - ii. Delayed Speech and Language
 - iii. Voice Disorders
 - iv. Articulation
 - v. Language related disorders

vi. Fluency Disorders.

SECOND TERM

1. Therapy for cases with speech and language disorders: voice disorders and articulation disorders, with special emphasis on hearing impairment, mental retardation and cerebral palsy, fluency disorders
2. Scheduling of therapy sessions. Selection and preparation of appropriate materials and activities.
3. Organizing parent guidance/counselling programs.
4. Suggesting appropriate activities for home training programmes.
5. Visits to different speech & hearing centres/special schools.
6. At the end of the first term, students are required to submit the speech and language evaluations of two cases.
7. At the end of the second term, they should submit therapy reports of two cases assigned to them along with material developed.

PSYCHOLOGY

FIRST TERM

1. Case history taking in the clinic and evaluation with the aid of developmental schedules.
2. Observing and eliciting behaviour with the use of developmental schedules.
3. Understanding psychological evaluation reports that are sent to them for certain cases requiring follow up services.
4. Self-help skills and how it can be developed in the child.
5. Selection of play activities/material appropriate to age.

SECOND TERM

1. Planning activities and guiding parents with minor behaviour problems under supervision.
2. Counselling and guidance to the parents and the patients whenever necessary.
3. Report writing.
4. Importance of making referrals and how to make a referral.
5. Submission of one complete case report.

Education for Children with Special Needs

FIRST TERM

1. Visit to general and special schools for observation. Maintaining records of observation.
2. Familiarity with the non verbal communication methods.
3. Teaching children with communication disorders
 - a) Preparing lesson plans and executing
 - b) Sense training program
 - c) Vocabulary building and connected language
 - d) Concepts and abstract language

SECOND TERM

1. Planning home training programs .
2. Teaching special subjects to speech & hearing impaired children.
3. Guiding clients with communication disorders for vocational placement.
4. Preparation of teaching aids and material for specific subject training.

