BACHELOR OF AUDIOLOGY AND SPEECH – LANGUAGE PATHOLOGY (BASLP)

ANNUAL SCHEME

PRACTICUM GUIDELINES

REHABILITATION COUNCIL OF INDIA

(Statutory body under Ministry of Social Justice & Empowerment)
B-22, Qutab Institutional Area, New Delhi – 110 016
E-mail: rehabstd@nde.vsnl.net.in
www.rehabcouncil.nic.in
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Note: Throughout the practicum

- **Demonstration to be made by the teacher or under the supervision of a teacher**
- **Identification, analysis, review, preparation, listing, labeling etc to be done by student under the guidance of a teacher**

I YEAR

B 1.1 INTRODUCTION TO HUMAN COMMUNICATION

(16 hrs.)

B.1.1 PRACTICUM

(Practicum upto Sr. No. 5 below should be preceded by demonstration for at least one hour each)

1. Identify and label parts of Brain with the help of Charts, Models and Software.

2. Identify simple harmonic motion, spectrum, pitch variation, acoustic features of spectrum using softwares & musical instruments.

3. Label and identify structures of the speech mechanisms with the help of charts, models, specimens and computer software

4. Conduct Oral Peripheral Mechanism examination on at least 5 typically developing children/adults.

5. Demonstrate, identify and classify the following using live and/or pre-recorded samples:

    - Pitch – normal / high / low/monotone/pitch breaks
    - Loudness - normal / loud / soft
    - Quality – normal / hoarse / harsh / breathy / hyper - nasal / hypo –nasal
    - Rate of speech – normal / fast / slow
    - Articulation – normal / misarticulation
    - Fluency – normal / abnormal
    - Intelligibility – using the AYJNIHH intelligibility rating scale or any other appropriate standard scale

6. Measure (Fundamental Frequency) F0, Vital capacity, phonation duration, rate of speech, DDK, s/z ratio in 5 normal individuals

B 1.2 SPEECH, LANGUAGE DEVELOPMENT AND DISORDERS

(16 hrs)

B.1.2 PRACTICUM

1. Observe and examine language development in pre-schoolers below 3 years & L.K.G. & U.K.G. Document the comprehension and expression abilities of language in at least 2 children in each age and stage respectively.

2. Study and document the emergence of speech sounds and phonology across children of different ages.

3. Observe and compare comprehension and expression skills of children of 2 different age groups.

4. Identify & list the disordered speech from given audio tapes/CDs.

5. Identify & list the delayed/deviant/disordered language using pre-recorded samples.

B 1.3: INTRODUCTION TO HEARING & HEARING SCIENCES

(16 hrs)

B.1.3 PRACTICUM

1. Label & identify parts of Ear with the help of a models; charts and software programmes.

2. Examine outer ear of at least 5 individuals with normal outer ear structures.

3. dB Concept: Listen and verify the differences in HL and SPL output from audiometers using headphone, insert phone, loudspeaker and BC vibrator; Measure MAP and MAF; listen and verify differences in the output from hearing aids.

4. Study with the help of software such as Praat/ Adobe Audition or such other programmes the following: pitch of different tones, matching pitch; loudness of tones of different intensities, loudness matching (Phone & Sone).

5. Demonstrate and measure in normal hearing subjects: Difference Limen for Intensity (DLI) & Difference Limen for Frequency (DLF) using appropriate instruments.

6. Examine clinical records of minimum ten clients and enumerate causes of hearing impairment as given in Unit 4 of B.1.2.

7. Through role play, administer case history on 3 children and 3 elderly individuals with hearing impairment.

8. Test five normal hearing individuals using tuning fork of different frequencies and list the findings.

9. Demonstrate and to measure the skills of sound localization in normal hearing subjects at different horizontal and vertical azimuths and illustrate the cone of confusion.
10. Classify audiometers according to BSI/ ANSI standards.

11. Label and identify the functions of external parts of audiometers.

12. Note the effect of varying instructions on obtaining thresholds.

13. Plot the appropriate symbols on audiogram keeping in mind the test/ transducer/ ear.

14. Determine the effect of the following on thresholds: a) using ascending descending methods c) duration of presentation of stimuli d) type of stimuli.

15. Experience and measure various types of masking noises and its effect on pure tone threshold.

16. Calculate masking levels with various formulae used for AC and BC testing.

17. Carry out biologic calibration of audiometer for different stimuli and transducers.

B 1.4 MANAGEMENT OF THE HEARING IMPAIRED

(16 hrs)

B.1.4 PRACTICUM

1. Review 10 audiograms and clients' history and classify hearing impairment according to:

    - Degree
    - Type
    - Onset
    - Nature

    and identify their impact on their activities and participation.

2. Identify instruments required for early identification – hand held screeners, reactometer, screening OAE/impedance.

3. Observe and compare communication between normal hearing mother and child with normal hearing and normal hearing mother and child with hearing impairment.

4. Differentiate between unisensory, and multi-sensory activity/approach with the use of pre-recorded sample/observation of case.

5. Observe and explain the method used for teaching pupil with hearing impairment in any school.

6. Recognize different parts of hearing aids and their functions.

7. Classify hearing aids according to type and style of hearing aids.

8. Identify different types of class room amplification systems.

B 1.6 PSYCHOLOGY RELATED TO SPEECH AND HEARING

(16 hrs)

B.1.6 PRACTICUM

1. Study development of Norms/Milestones of behavior particularly related to speech, language and hearing behavior, i.e. attention, socialization.

2. Observe pre-recorded interactions of children and identify/label as emotional, socializing, attending, possessive behavior and sharing behavior seen in children of 0-2 years and above 2 years of age.

3. Identify tamper tantrums, hyperactivity and aggressive behavior in children presenting video clippings.

4. Identify reinforcement strategies with various reinforcers/practical demonstration of selecting reinforcement and reinforcement schedules for different age groups.

5. Demonstrate tests:

   a) Commonly used for personality, intelligence, attitude and aptitude.

   b) Performance vs. language based tests.

6. Demonstration of behavioral modification techniques and its application to speech (ADHD, Autism Spectrum Disorder, PDD and other childhood disorders) and hearing disorders.

7. Observation and demonstration of testing of neurocognitive behaviors attention, motivation, comprehension cognition.

8. Demonstration of any two counseling techniques through role playing.

II YEAR

B 2.1 SPEECH LANGUAGE DIAGNOSTICS AND THERAPEUTICS

(16 hrs)

B.2.1 PRACTICUM

1. Demonstrate on how to ask questions and to elicit responses from client parents and care givers through role play.

2. Recognize the difference between check list, inventory and questionnaire and developmental schedules.

3. Relate complaint to features presented and selecting appropriate tools for testing: recognize the difference between formal vs informal testing: structured vs unstructured interview.

4. Differentiate between speech, language and communication characteristics in a typically developing child.

5. Distinguish between segmental and suprasegmental aspects using pre recorded audio samples.

6. Distinguish between screening and diagnostic tests for language and articulation and list the standardized tests developed in India.

7. Demonstrate at least 5 earlier assessed individuals having communication disorders (live / recorded material) - deviations, delay and disorders.

8. Demonstrate speech language stimulation techniques on children having hearing impairment, mental retardation and SLI.
9. Differentiate between general therapeutic approaches using MIDVAS.

10. Demonstrate different reinforcement techniques.

B 2.2 ARTICULATION AND PHONOLOGICAL DISORDERS

(16 hrs)

B.2.2 PRACTICUM

1. Differentiate between articulation and phonological disorders in terms of consistency of errors, position of errors and type of error in minimum 3 subjects using pre-recorded audio video samples.

2. Administer and score a screening articulation test in a local language through role play.

3. Identify phonological processes/errors from a video clipping and differentiate them from articulation errors.

4. Review history of 5 individuals with HI and enumerate types of errors in articulation.

5. Demonstrate two methods of / approach to articulation therapy – phonetic placement method, phonological method, minimal pairs approach.

6. Transcribe a list of 100 words and a passage of 100 words in IPA in any appropriate Indian language.

7. Analyse vowels and consonants and variations amongst students.

8. Demonstrate and identify aperiodical noise vs. periodic voicing & vowels vs. consonants using a spectrogram.
9. Do Error analysis and DF analysis for 5 clients.

10. Identify phonological process in normal developing children of different ages from recordings.

11. Classify at least 3 given pictures/plates of clients into different categories of disorder with CLP, glossectomy, maxillofacial and syndrome.
    Based on the above, explain the functions affected.

12. Identify from the above pictures/plates, the associated problems that could accompany or be present in the client.

13. Identify syndromic structural deformity from the pictures/plates & contrast it with non syndromic condition.

14. Identify typical cleft type errors on pre recorded samples.

16. Observe the perception and instrumental evaluation of VPI from pre recorded sample.

17. Demonstrate specific techniques used to correct articulation and resonance errors in CLP population.

18. Develop a lesson plan for a given profile of a client with CLP/glossectomy.

19. Identify different prosthetic aids used with clients with CLP/glossectomy.
(Material to be provided by Dr. Roopa Nagarajan to all the Institutes free of cost)

20. Classify errors in samples of individuals with CLP into obligatory, compensatory and developmental errors.

B.2.3 VOICE AND LARYNGECTOMY

(16 hrs)

B.2.3 PRACTICUM

1. Perceptual analysis of subjects with normal voice, using pre-recorded samples of - 1 adult male, 1 adult female and 1 child

2. Perceptual voice analysis of hyper-hypo functional voice.

3. Students to determine own aerodynamic parameters using expirograph/ aerophone or any other appropriate equipments.

4. Acoustic analysis of own voice and compare with available norms.

5. Document acoustic and perceptual variations in individuals with hyper and hypo functional conditions.

6. Analyze perceptually pre-recorded sample of alaryngeal speech (TEP and esophageal speech and artificial larynx).

7. Demonstrate pre recorded/live endo-stroboscropic examination and relate the perceptual and instrumental findings.

8. Demonstrate therapy techniques such as yawn sigh, push pull, relaxation, Guttsman and others and make the students practice on each other.

9. Review and obtain norms established in India on acoustic and aerodynamics.

10. Interpret acoustical voice analysis and EEG analysis of voice disorders.

11. Familiarize students with different voice protocols

12. Familiarize students with different Recording protocol

Review and obtain norms established in India on acoustic and aerodynamics.

B 2.4 MOTOR SPEECH DISORDERS

(16 hrs)

B.2.4 PRACTICUM

1. With the help of models, charts and softwares, identify:

   a . Motor control centers in the brain.
   b. cranial nerves and their innervations, functions and affliction.

2. Identify reflex profile of spastics and athetoids.

3. Classify clients into different categories of cerebral palsy from video records and list out associated problems found in each category.

4. Examine difference between:

   - hyperkinesia, dyskinesia and ataxia using video sample
   - Identify and decipher apraxia of speech from pre recorded video.

5. Observe any two types of children with CP and record (a) physical status, (b) oral sensory motor abilities and vegetative skills, (c) respiration, (d) phonation, (e) resonation, (f) articulation.

6. Identify from video the AAC system such as low technology vs. high technology systems and different symbol system, i.e. Bliss symbols, IICP symbols and different signing systems – Makaton, ISL, and ASL.

7. Demonstrate RIPs with the assistance of physiotherapist or video.

8. Identify normal, primitive, postural and pathological reflexes from videos.

9. Identify feeding problems for 3 clients with cerebral palsy.

10. Identify the cranial nerves, its origin and insertion from the model.

11. Observe Assessment of cranial nerves related to speech and language.

12. Identify the signs of LMN & UMN disorders from video samples.

13. Review screening and diagnostic tests for assessing clients with dysarthria and apraxia.

14. Analyze perceptually 5 samples of clients with dysarthria with reference to subsystems.

15. Differentiate the symptoms observed from the prerecorded video samples between dysarthria, apraxia and misarticulation.

16. Demonstrate facilitatory and compensatory therapy techniques commonly used for dysarthria.

17. Prepare a therapy plan for a given profile of a client with motor dysarthria/apraxia.

18. Counsel by role play for a given profile of a client.

19. Demonstrate subjective and objective assessment of swallowing on a non-clinical subject.

20. Identify the swallowing difficulties observed in 3 clients with dysphagia due to neurological functional causes.

21. Appreciate the objective assessment reports for Dysphagia.

22. Do an acoustic analysis of dysarthric speech.

B 2.5 DIAGNOSTIC AUDIOLOGY

(16 hrs)

B.2.5 PRACTICUM

1. Identify/demonstrate difference in instructions for ABLB/ MLB/TDT/STAT & SISI.

2. Demonstrate using role play the different procedures to identify pseudohypacusis.

3. Demonstration of test findings and summary report of at least two referral sources.

4. Administer APD tests such as SPIN, dichotic tests, PPT/DDT/GDT amongst the students on each other.

5. Demonstrate major parts of equipment to measure immittance.

6. Practice ear examination and probe placement with your class mates.

7. Administer on each other and record tympanometry and measure acoustic and non-acoustic reflexes and decay test.

8. Classify different types of tympanograms from given samples.

9. Predict reflex levels in given samples (5 samples).

10. Demonstrate ET function test.

11. List out electrode montage for single channel, double channel recording of ABR.

12. Practice electrode placement mutually among classmates and record findings of 2 classmates.

13. Identify variability in response with changing parameters and setting for ABR in children and adults.

14. Identify response variability for different stimuli such as click, tone burst, speech in ABR.

15. Demonstrate BC- ABR, ASSR and higher level evoked potential and ENG.

16. Listen and learn difference in stimuli for Transient and Distortion product – OAE.

17. Measure different types of OAE including contralateral suppression.

B 2.6 TECHNOLOGY & AMPLIFICATION DEVICES FOR PERSONS WITH HEARING IMPAIRMENT

(16 hrs)

B.2.6 PRACTICUM

1. Identify the internal and external components of hearing aids.

2. Identify different types of hearing aids.

3. Identify type of batteries used for hearing aids/ALDs and Cochlear Implant Processor.

4. Measure with the help of multimeter – resistance, inductance, current continuity.

5. Interpret from the EAC chart of a hearing aid and compare it with available standards.

6. Identify instruments and setting need for measurement of electro acoustic characteristics of hearing aids.

7. Identify instruments, material and tools for each stage of making custom earmoulds.

8. Select appropriate earmould from the given below samples for different styles of hearing aids.

9. List the hearing aids available under ADIP Scheme and give their electro acoustic characteristics.

10. Based on profile of a client with HI, select hearing aid (s) from specifications of different hearing aids.

11. Trouble shoot hearing aid.

12. Demonstrate the difference in selection by use of HIPRO and or other software as compared to conventional selection.

13. Set a selected hearing aid for MPO control, gain and frequency response as per 5 different audio grams (including trim controlled and software driven devices).

B 2.7 PEDIATRIC AUDIOLOGY

(16 hrs)

B.2.7 PRACTICUM

1. Track development of human auditory system in embryo using slides.

2. Review studies in India and abroad regarding pre-natal, new born auditory behavioural development (0-2 years) and responses associated with varying stimuli usage.

3. Carryout and identify responses to different auditory stimuli in infants below 1 year.

4. Administer HRR on at least 3 appropriate subjects and interpret responses.

5. Identify instruments for pediatric screening and label their parts.

6. Demonstrate and make the students do on at least 2 children the following:
   - BOA
   - VRA
   - BERA
   - Conditioned Audiometry
   – Speech Awareness Test (SAT)
   - Speech Recognition Test (SRT)

7. Observe and note behavioural responses for different sounds at different levels in subjects of different ages, cross sectionally exposed to real subjects or with video cassettes.

8. Demonstrate 3 pediatric normative BERA and diagnostic OAE.

THIR YEAR
B 3.1 FLUENCY AND ITS DISORDERS

(16 hrs)

B. 3.1 PRACTICUM

1. Find out the baseline fluency of :

   a) 5 of your class mates -
   b) 2 pre-schoolers, 3-5 years
   c) 2 primary school – 8 -10 years subjects.

2. Differentiate between prosody, fluency and rate of speech and calculate percentage of dysfluency and rate of speech (using recorded samples).

3. Analyze the pre-recorded video tapes/CDs available in terms of types of dysfluencies and describe them in terms of frequency and place of occurrence and identify secondary symptoms.

4. Demonstrate SSI rating and get each student rate for at least 3 samples.

5. Demonstrate airflow modification technique, prolongation, shadowing; cancellation, fluency shaping and various analogues for children with stuttering (CWS).

6. Ask students to practice through role play different techniques and use of differential reinforcement schedules, and counselling of caregivers.

7. Transcribe speech samples for 5 clients.

8. Identify different therapy activities for group therapy.

B 3.2 NEUROGENIC LANGUAGE DISORDERS IN ADULTS

(16 hrs)

B.3.2 PRACTICUM

1. Use diagrams and label various language areas of the brain and blood supply with the use of CDs.

2. Identify the various anatomical areas affected in individuals with aphasia using charts/models/videos.

3. Identify the errors and differentiate types of aphasia based on video sample.

4. Categorize the given list of skills based on whether it is controlled by right or left hemisphere.

5. Formulate activities to assess defects due to RHD, TBI, dementia, and acquired dyslexia.

6. Demonstrate administration through role play / live of tests such as WAB, LPT, RTT and Bedside evaluation of aphasia.

7. Role play commonly used therapy techniques for different types of aphasia.

B 3.3 REHABILITATIVE AUDIOLOGY

(16 hrs)

B.3.3 PRACTICUM

1. Make a list of speech sounds based on their visibility in each students' respective language and prepare word lists for speech reading material using the above information.

2. Administer any one of the speech reading tests available in Indian languages.

3. Demonstrate analytic vs. synthetic approach to speech reading through video or role play.

4. Analyze the content for available auditory learning / training packages developed in India and identify the approach used.

5. Prepare 3 lesson plans for auditory training / learning.

6. Through role play administer self-reporting inventories on two elderly persons with hearing impairment.

7. Identify different ALDs for communication and alerting.

8. Demonstrate Cochlear implant mapping.

9. Through role play, carryout AVT/Auditory Learning/Speech Reading/ Communication strategies.

B 3.4 NOISE MEASUREMENTS AND HEARING CONSERVATION

B.3.4 PRACTICUM

1. Set the Sound Level Meter (SLM) to measure noise in closed environment, open environment, using octave and 1/3rd octave filter setting; selection of appropriate microphone and its accessories.

2. Demonstrate measurement of ambient noise, traffic noise, steady state noise, and impulse noise.

3. Demonstrate the settings on SLM / other appropriate instrument the following:
   - noise criteria curve (NCC)
   - noise reduction rating (NRR)
   - signal to noise ratio (SNR)

4. Identify the given audiograms indications of possibile NIHL; and role-play counselling regarding hearing conservation program.

5. Documentation required for implementing a hearing conservation programme in an industry.

6. Measure attenuation characteristics of given Hearing Protection Devices (HPDs).

7. Demonstration of calibration of pure tone, speech and noise (NBN, WBN & Speech noise) stimuli for different transducers using appropriate instruments.

8. Identify different types of HPDs and give their characteristics.

B 3.5 COMMUNITY ORIENTED PROFESSIONAL PRACTICES IN SPEECH LANGUAGE PATHOLOGYAND AUIOLOGY

(16 hrs)

B.3.5 PRACTICUM

1. Extract the incidence of hearing, language and speech disorders from Census carried out at National level, your State and your district.

2. Extract from RCI website: www.rehabcouncil.nic.in information on levels of training, human resource requirement from the IAMR Report, number of institutions engaged in training in speech and hearing in India.

3. Conduct audit for barrier free environment of your Centre/Institute for accessibility using check list available on CCD website for persons with disabilities.

4. List out the public awareness programmes of your Centre/Institute and compare it with one of the national/apex level institution in India.

5. List out aids, appliances, concessions, reservations available to persons with hearing impairment and speech and language disability as per your own State/Centre.

6. Work out a plan for conducting camp for creating public awareness in your area.

7. Work out details of requirement of speech & hearing camps in rural areas.

8. List out CBR activities for your area.

9. Apply ICF to classify a given profile of the client with reference to activity limitation and participation restriction.

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