COURSE STRUCTURE AND CONTENT

CODES/ PAPER NO.	PAPER TITLE	Teaching Hrs/wk (min.)	Total Credits	Total hrs / Sem. (min)	Exam duration	Exam Marks	I.A. Marks	Total
SEMESTER I								
B 1.1.	**Introduction to Human Communication**	4	4	64	3	80	20	100
B 1.2	**Speech Language Development & Disorders**	4	4	64	3	80	20	100
B 1.3	**Introduction to Hearing & Hearing Sciences**	4	4	64	3	80	20	100
B 1.4	**Basic Medical Sciences related to Speech & Hearing**	4	4	64	3	80	20	100
B 1.5	**Clinical Practicum-Speech Language Pathology-I**	12	4	192	-	50	50	100
B 1.6	**Clinical Practicum-Audiology-I**	12	4	192	-	50	50	100
TOTAL		**40**	**24**	**640**	**12**	420	180	600
SEMESTER II								
B 2.1.	**Speech - Language Diagnostics and Therapeutics**	4	4	64	3	80	20	100
B 2.2	**Introduction to Audiology & Auditory Tests**	4	4	64	3	80	20	100
B 2.3	**Management of the Hearing Impaired**	4	4	64	3	80	20	100
B 2.4	**Psychology related to Speech & Hearing**	4	4	64	3	80	20	100
B 2.5	**Clinical Practicum-Speech Language Pathology-II**	12	4	192	-	50	50	100
B 2.6	**Clinical Practicum-Audiology-II**	12	4	192	-	50	50	100
	TOTAL	**40**	**24**	**640**	**12**	**420**	**180**	**600**
ADD ON COURSE								
**B 2.7	Communicative English & Soft skills	4		60	3	80	20	100

**B 2.7 is optional as per respective university & accurate to their prescribed paper content/course work

***One hour of lecture = 1 credit, Three hours of clinical practicum = 1 credit, for add on course 15 hours of lecture = 1 credit**

CODES/ PAPER NO.	PAPER TITLE	Teaching Hours/ week (minimum)	Total Credits	Total hours / semester (minimum)	Exam duration	ExamMarks	I.A. Marks	Total
SEMSTER III								
B 3.1	**Articulation & Phonological Disorders**	4	4	64	3	80	20	100
B 3.2	**Maxillofacial Anomalies**	4	4	64	3	80	20	100
B 3.3	**Diagnostic Audiology: Part 1**	4	4	64	3	80	20	100
B 3.4	**Rehabilitative Audiology**	4	4	64	3	80	20	100
B 3.5	**Clinical Practicum-Speech Language Pathology-III**	12	4	192	-	50	50	100
B 3.6	**Clinical Practicum-Audiology-III**	12	4	192	-	50	50	100
	TOTAL	**40**	**24**	**640**	**12**	**420**	**180**	**600**
SEMESTER IV								
B 4.1	**Voice & Laryngectomy**	4	4	64	3	80	20	100
B 4.2	**Motor Speech Disorders in Children and Adults**	4	4	64	3	80	20	100
B 4.3	**Diagnostic Audiology: Part 2**	4	4	64	3	80	20	100
B 4.4	**Paediatric Audiology**	4	4	64	3	80	20	100
B 4.5	**Clinical Practicum-Speech Language Pathology-IV**	12	4	192	-	50	50	100
B 4.6	**Clinical Practicum-Audiology-IV**	12	4	192	-	50	50	100
	TOTAL	**40**	**24**	**640**	**12**	**420**	**180**	**600**
**B 4.7	Computer Basics &Applications	4		6	3	80	20	100

**B 4.7 is optional as per respective university & accurate to their prescribed paper content/course work

CODES/ PAPER NO.	PAPER TITLE	Teaching Hours/ week (minimum)	Total Credits	Total hours / semester (minimum)	Exam duration	Exam Marks	I.A. Marks	Total
SEMESTER V								
B 5.1.	**Fluency & its Disorders**	4	4	64	3	80	20	100
B 5.2	**Technology & Amplification Devices for persons with Hearing impairment**	4	4	64	3	80	20	100
B 5.3	**Professional Practices in Speech, Language & Hearing including Community Work**	4	4	64	3	80	20	100
B 5.4 (A) (B)	**Forensic Sciences related to Speech and Hearing** **Linguistics**	4	4	64	3	80	20	100
B.5.5	**Clinical Practicum-Speech Language Pathology-V**	12	4	192	-	50	50	100
B.5.6	**Clinical Practicum-Audiology-V**	12	4	192	-	50	50	100
	TOTAL	**40**	**24**	**640**	**12**	**420**	**180**	**600**
SEMESTER VI								
B 6.1.	**Neurogenic Language Disorders In Adults**	4	4	64	3	80	20	100
B 6.2	**Noise Measurements & Hearing Conservation**	4	4	64	3	80	20	100
B 6.3	**Basic Statistics & Scientific Enquiry in Audiology & Speech Language Pathology**	4	4	64	3	80	20	100
B 6.4(A) (B)	**Auditory Verbal Therapy** **Genetics related to Speech and Hearing**	4	4	64	3	80	20	100
B.6.5	**Clinical Practicum-Speech Language Pathology-VI**	12	4	192	-	50	50	100
B.6.6	**Clinical Practicum-Audiology-VI**	12	4	192	-	50	50	100
	TOTAL	**40**	**28**	**640**	**12**	**420**	**180**	**600**
B.6.7	Environmental Studies	4	4	64	3	80	20	100
**B 6.7 is optional as per respective university & accurate to their prescribed paper content/course work								

CODES/ PAPER NO.	PAPER TITLE	Teaching Hours/ week (minimum)	Total Credits	Total hours / semester (minimum)	Exam duration	Exam Marks	I.A. Marks	Total
IV Year								
	Internship	**Guidelines** 1. Internship is mandatory 2. **Duration**: One academic year (10 months) equal to two semester 3. **Structure and duration of the postings**: i. The place of postings of the students for internship will be decided by the respective institute conducting the course. ii. Students should spend minimum of 50% period of internship at parent institute and 50% period outside the parent institute like hospital set ups, educational set ups, special clinical facilities like ASD, cochlear implants, AVT, mother's training program, centres for CP, centres for LD. Exposure should be for those areas where limited exposure was provided in the parent institute. iii. During internship students should get additional training in the areas of neurological related problems, prevention and early intervention programmes, community based rehabilitation, occupational health programmes, structural abnormalities related to speech & hearing.						

GRAND TOTAL (FOR ALL SEMESTERS)	Teaching hours per sem	Total Credits	Total hours (minimum)	Exam Duration	Exam Marks	I.A. Marks	Total
THEORY	256	96	1536	72	1920	480	2400
PRACTICAL(SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY)	384	48	2304	-	600	600	1200

FACULTY OF SCIENCE

BASLP I SEMESTER EXAMINATION(CBCS), DECEMBER 2016

SUBJECT:_____

PAPER:_____

Time: 3 hrs **Total marks: 80**

NOTE: Answer all questions from Part A and Part -B. each question carries 4 marks in PArt A and 12 marks in Part B

PART A

1. a (or) b)
2. a) (or) b)
3. a) (or) b)
4. a) (or) b)
5. a) (or) b)

PART B. - 5x12=60 marks

6. a) (or) b)
7. a) (or) b)
8. a) (or) b)
9. a). (or) b).
10. a) (or) b).

FACULTY OF SCIENCE

BASLP II SEMESTER EXAMINATION(CBCS), April/May 2017

SUBJECT:_____

PAPER:_____

Time: 3 hrs **Total marks: 80**

NOTE: Answer all questions from Part A and Part -B. each question carries 4 marks in PArt A and 12 marks in Part B

PART A

2. a	(or)	b)
2. a)	(or)	b)
7. a)	(or)	b)
8. a)	(or)	b)
9. a)	(or)	b)

PART B. - 5x12=60 marks

10. a)	(or)	b)
8. a)	(or)	b)
8. a)	(or)	b)
9. a).	(or)	b).
10. a)	(or)	b).

FACULTY OF SCIENCE

BASLP III SEMESTER EXAMINATION(CBCS), DECEMBER 2017

SUBJECT:_____

PAPER:_____

Time: 3 hrs **Total marks: 80**

NOTE: Answer all questions from Part A and Part -B. each question carries 4 marks in PArt A and 12 marks in Part B

PART A

3. a	(or)	b)
2. a)	(or)	b)
11. a)	(or)	b)
12. a)	(or)	b)
13. a)	(or)	b)

PART B. - 5x12=60 marks

14. a)	(or)	b)
9. a)	(or)	b)
8. a)	(or)	b)
9. a).	(or)	b).
10. a)	(or)	b).

FACULTY OF SCIENCE

BASLP IV SEMESTER EXAMINATION(CBCS), APRIL/MAY 2018

SUBJECT:_____

PAPER:_____

Time: 3 hrs **Total marks: 80**

NOTE: Answer all questions from Part A and Part -B. each question carries 4 marks in PArt A and 12 marks in Part B

PART A

4. a	(or)	b)
2. a)	(or)	b)
15. a)	(or)	b)
16. a)	(or)	b)
17. a)	(or)	b)

PART B. - 5x12=60 marks

18. a)	(or)	b)
10. a)	(or)	b)
8. a)	(or)	b)
9. a).	(or)	b).
10. a)	(or)	b).

FACULTY OF SCIENCE

BASLP V SEMESTER EXAMINATION(CBCS), DECEMBER 2018

SUBJECT:_____

PAPER:_____ OPTIONAL:_____

Time: 3 hrs **Total marks: 80**

NOTE: Answer all questions from Part A and Part -B. each question carries 4 marks in PArt A and 12 marks in Part B

PART A

5. a	(or)	b)
2. a)	(or)	b)
19. a)	(or)	b)
20. a)	(or)	b)
21. a)	(or)	b)

PART B. - 5x12=60 marks

22. a)	(or)	b)
11. a)	(or)	b)
8. a)	(or)	b)
9. a).	(or)	b).
10. a)	(or)	b).

FACULTY OF SCIENCE

BASLP VI SEMESTER EXAMINATION(CBCS), APRIL/MAY 2019

SUBJECT:_____

PAPER:_____OPTIONAL:_____

Time: 3 hrs **Total marks: 80**

NOTE: Answer all questions from Part A and Part -B. each question carries 4 marks in PArt A and 12 marks in Part B

PART A

6. a	(or)	b)
2. a)	(or)	b)
23. a)	(or)	b)
24. a)	(or)	b)
25. a)	(or)	b)

PART B. - 5x12=60 marks

26. a)	(or)	b)
12. a)	(or)	b)
8. a)	(or)	b)
9. a).	(or)	b).
10. a)	(or)	b).

SEMESTER I
B 1.1 INTRODUCTION TO HUMAN COMMUNICATION

(80+20 marks) **(Total = 64 hrs)**

Objectives: After studying this paper at the end of the semester, the student should be able to understand the following –

1. Human communication, process involved in communication
2. Interrelation between hearing, speech and language
3. The neurological, psychological, social and acoustic bases of communication

Unit 1 **(12 hrs)**

1. History and development of the profession of Speech-language pathology (SLP) specifically in India
1. Major work activities of the SLP
2. Various settings of service delivery
3. Other professions concerned with communication disorders
4. Human communication:
   Definition and components
   Interdependency & interrelation between communication, hearing, speech, and language.
   Function of communication, speech and language Modes of communication (Verbal & Non-verbal) Characteristics of good speech
5. Interactive bases of human communication
   - genetic bases
   - psychological & cognitive bases
   - social bases
6. Speech as an overlaid function
7. Pre-requisites and factors affecting language and speech development

Unit 2 **(14 hrs)**

1. Nervous system:

   - Divisions and functions of the nervous system, nerve cell, receptors and synapse, types of nerve fibres. Peripheral nervous system. Brief description of spinal cord and CSF.

- Structure of the brain and divisions: general and lobes of cerebrum. Reticular formation, Basal ganglia and cerebellum. Reflex action and common reflexes. Cranial nerves, distribution and supply with the special reference to II , V, VII , IX, X , XII., Nerve tracts (motor and sensory), Broadmann's area, anatomy of the nervous system related to speech and language.

Unit 3 **(14 hrs)**

Mechanism of speech and language production- I

- Anatomy and physiology of respiratory system: Detailed study of trachea, larynx, oropharynx and nasopharynx.
- Respiration for life and speech
- Physiology: External and internal respiration. Mechanism of respiration-internal and external influence, nervous control, Lung volumes (vital capacity-tidal volume. residual air, artificial respiration.(in brief)
- Composition of gases. Exchange of gases in the lungs and tissues. Hypoxia, asphyxia and cyanosis. Regulation of respiration. Respiratory efficiency test and artificial respiration.

Unit 4 **(12 hrs)**

1. Basic Acoustics of speech:

- Vibrating system – simple harmonic motion – simple vibrating system – system with two or more masses – system with many modes of vibrations – vibration spectra. Waves – What is a wave? Progressive waves – sound waves – wave propogation – Doppler effect – reflection, diffraction, interference, absorption. Resonance of a mass spring vibrator- standing waves – partials, harmonics and overtones – Acoustic impedance – Helmholtz resonator – sympathetic vibrations.

2. Mechanism of speech and language production- II

- Anatomy and physiology of laryngeal system
- Development of voice
- Bases of pitch and loudness change mechanism

Unit 5 **(12 hrs)**

Mechanism of speech and language production- III

- Anatomy and physiology of articulatory system
- Anatomy and physiology of resonatory system

LIST OF BOOKS

Compulsory Reading:

1) Speech Correction: An Introduction to Speech Pathology and Audiology (8th Ed.). Van Riper, C and Emerick, L. (1990). New Jersey: Prentice Hall Inc.

2) Singh, I. (1996). Textbook of Anatomy with Color Atlas, Vol. III Jaypee Brothers.

3) Zemlin, W.R. (1981). Speech and Hearing Science: Anatomy and Physiology, (2nd Ed.). Englewood Cliffs, New Jersey: Prentice Hall.

Additional / Optional Reading:

1) Minifie, F.D., Hixon, T.J.,and Williams, F. (1973). Normal aspects of Speech, Hearing and Language. New Jersey: Prentice Hall Inc.

2) Skinner, P.H. and Shelton, R.L. (1978). Speech, Language and Hearing- Normal Processes and Disorders. (2nd Ed.). New York: John Wiley and Sons.

3) Human Communication Disorders: An Introduction (4th Ed.). Shames, G.H. Wiig, E.H. & Secord, W.A. (1994) New York: Merill Publishing Co.

4) Speech and Hearing Science, Anatomy and Physiology (3rd ed.). Zemlin, W.R.(1988) New Jersey: Englewood Cliffs

5) Human Communication & Its Disorders (2nd Ed.). Boone, D.R. & Plante, E. (1993). New Jersey: Prentice Hall Inc.

6) Palmer, J.M. (1984). Anatomy for Speech and Hearing, (3rd Ed.). New York: Harper and Row.

7) Perkins, W.H. and Kent, R.D. (1986). Textbook of Functional Anatomy of Speech, Language and Hearing. London: Taylor and Francis.

8) Gray's Anatomy. (37th Ed.). Williams Warwick and Dyson Banniser. (1989). Churchill

SEMESTER I
B 1.2 SPEECH, LANGUAGE DEVELOPMENT AND DISORDERS

(80+20 marks) **(Total = 64 hrs)**

Objectives

After studying this paper at the end of the semester, the student should be able to understand the following –

- Development of speech & language
- Identify different speech & language disorders
- Basics of assessment and intervention for Child language disorders.

Unit 1 **(14 hrs)**

Development of speech and Language:
Development of language
Semantics: A brief introduction to different types of homonyms, synonyms and antonyms.
Morphology: Morpheme – bound and free, process of word formation, content and function words.
Syntax:, grammatical and syntactic categories, sentence types, Syntactic analysis.
Pragmatics: Introduction to verbal and non-verbal communication and other indicators, intent of communication.

Unit 2 **(10 hrs)**

Theories and models of language Acquisition – Behavioral, Nativistic, Cognitive, Linguistic, Pragmatic, Biological and Information processing model.

Developmental issues in communicative development – genetic, neurological, medical, behavioural, social and psychological.

Bilingualism / multilingualism in children; Bilingual Language learning contexts home and school situations, compound / coordinate context and others.

Unit 3 **(12 hrs)**

Definition, Etiology, Characteristics, Classification and Impact of
Hearing Impairment
Mental Retardation
Cerebral Palsy
Seizure disorders

Introduction to assessment procedures, differential diagnosis and management.

Unit 4 **(12 hrs)**

Definition, Etiology, Characteristics and classification of
Autism Spectrum Disorders/Pervasive Developmental Disorders
Attention Deficit Disorder/ Attention Deficit Hyperactive Disorder

Introduction to assessment procedures, differential diagnosis and management.

Unit 5 **(16 hrs)**

Definition, Etiology, Characteristics, Classification and Impact of
Specific Language Impairment
Learning Disability
Acquired aphasias in childhood
Traumatic Brain Injury
Multiple disabilities

Introduction to assessment procedures, differential diagnosis and management.

LIST OF BOOKS

Compulsory Reading:

1) Reed, V. (1994). An Introduction to children with language disorders. (2nd Ed.) New York: Macmillan.

2) Nelson N. W (1998). Childhood language disorders in context – infancy through adolescence, Allyn and Bacon, Boston.

3) Hegde, M. N. (1996). A Coursebook on Language Disorders in Children. San Diego: Singular Publishers.

4) Ladefoged P. (1992). A course in Phonetics. (3rd Ed.). New York: Harcourt Brace Jovanovich.

5) Lees, J.A. and Urwin, S. (1991): Children with Language Disorders. Whurr Publishers

Additional/Optional Reading:

6) Woolfolk, E. & Lynch J. (1982). An integrative approach to language disorders in children. New York: Grune and Stratton.

7) Thirumalai M. S. Shyamala Chengappa (1988) Simultaneous Acquisition of two languages CIIL, Mysore

8) Fromkin, L.F. and Rodman, R. (1993). An Introduction to Language (5th Ed.). New York: Harcourt Brace Jovanovich

9) Subba Rao (1992). Developing communication skills in MR, NIMH, Secunderabad.

10) Shyamala K. Chengappa (1992). Speech and Language of the cerebral palsied, CIIL, Mysore.

11) Shyamala K. Chengappa (1986). Introduction to speech disorders in children an introduction IED cell, Port Blair, Anadaman & Nichobar.

12) O'Connor. (1993). Phonetics. Hammondsworth: Penguin books

13) Yule, G (1996). The Study of Language: An Introduction. (2nd Ed.). Cambrige: Cambridge University Press.

14) Lyons, J. (Ed.). (1970). New Horizons in Linguistics. Hammondsworth: Penguin Books.

15) Akmajian. A. et al. (1990). Linguistics: An Introduction to Language and Communication

SEMESTER I
B 1.3: INTRODUCTION TO HEARING & HEARING SCIENCES

(80+20 marks) **(Total = 64 hrs)**

Objectives: After studying this paper at the end of the semester, the student should be able to understand the following –

- Basic aspects of auditory system
- Physical and psychophysical basis of sound
- Tuning fork tests

Unit 1 **(12 hrs)**

- Origin of Audiology
- Its growth & development (since World War II)
- Its growth in India
- Scope of Audiology
- Branches of Audiology

Unit 2 **(14 hrs)**

- Audiovestibular system: Anatomy of the external, middle and internal ears. Ascending and descending auditory and vestibular pathways.

- Physiology of the external, middle & inner ear, central hearing mechanisms, cochlear microphonics, action potentials, theories of hearing (AC & BC)

- Vestibular system: Functions of utricle, saccule and vestibular apparatus. Posture and equilibrium. Tests of posture and equilibrium

- Role of hearing (threshold concept, binaural hearing, head shadow, pinna shadow effect, MAF, MAP – Curve for threshold of hearing) & Causes of hearing impairment

Unit 3 **(14 hrs)**

- Sound Pressure, Power and Loudness. Physical and psychophysical scales, Equal loudness contours, Frequency weighting curves, combined sources, Pitch and Timbre. Physical and psychophysical scales. Fourier analysis of complex Tones

- dB concept: power and pressure formulae: zero dB reference for pressure and power calculation of actual SPL, reference and dB values with any to given values, calculation of overall dB when two signals are superimposed.

- Phones and Sones: relation between phones and sones; use of phone and sone; computation of relative loudness of two given sounds using these graphs. Frequency and intensity, their psychological correlates: dL for frequency and intensity

Unit 4 **(12 hrs)**

- Causes of hearing loss
  - Genetic (congenital, of late onset, progressive, syndromic/non-syndromic)
  - Non-Genetic (Congenital/acquired)
  - Importance of case history in identifying the cause of hearing loss

Unit 5 **(12 hrs)**

- Tuning fork tests (Rinne, Weber, Bing, Schwabach), interpretation, merits & demerits.
- Basic concepts of AC & BC testing
  - procedure
  - interpretation
  - precautions to be taken while testing
- Theory of bone conduction

LIST OF BOOKS

Compulsory Reading:

1. Hodgson, H.R. (1980) Basic Audiologic Evaluation, London Williams and Wilkins.
2. Martin, F.N. (1991), Introduction to Audiology, IV Edition, New Jersey: Frentice Hall.
3. Newby, H.A. (1985), Audiology, New York: Appletion-Century-Crofts.
4. Testing, interpretation and recording - ISHA Battery (1990). ISHA publication.
5. The Science of sound – Thomas D. Rossing, Addion – Wasloy Publishing Company
6. Architectural Acoustics. Egan, M. D. Mc Graw Hill Inc, (1988)
7. Bess and Humes (1990) Audiology - Fundamental. Williams and Wilkins, London.
8. Davis and Silverman, (Latest Edition). Hearing and deafness. Holt, Rinehats & Winston, London.
9. Rose, D.M. (Ed.) 1978), Audiological Assessment, New Jersey: Prentice Hill.

Additional Reading:

1. Beagly, H.A. (Ed.) (1981). Audiology and Audiological Medicine. Vol. 1, Oxford University Press.
2. Relevant BIS documents

SEMESTER I
B 1.4 BASIC MEDICAL SCIENCES RELATED TO SPEECH & HEARING

(80+20 marks) **(Total = 64 hrs)**

Objectives: After studying this paper at the end of the year, the student should be able to understand the following –

- Basic anatomy and physiology related to speech and hearing
- Basic neurological, genetic issues related to speech and hearing
- General diseases/conditions related to speech and hearing disorders

Objectives: After studying this paper at the end of the year, the student should be able to understand the following –

- Basic anatomy and physiology related to speech and hearing
- Basic neurological, genetic issues related to speech and hearing
- General diseases/conditions related to speech and hearing disorders

PART A (UNIT 1) ANATOMY

Unit 1 (20 + 5 marks) **(12 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,

PART B (UNIT 2) PHYSIOLOGY

Unit 2 **(20 + 5 marks)** **(14 hrs)**

(a) Definition of inflammation, infection, tumor – benign & malignant, tissue healing.

(b) Mechanism of respiration – internal and external influence, nervous control – vital capacity – tidal volume, residual air, artificial respiration (in brief).

(c) 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).

(d) Endocrine system: Definition of hormone, functions of thyroid hormone, growth hormone, androgen, testosterone and its influence in voice disorders.

PART C (UNIT 3, 4, 5) ENT

Unit 3 **(40 + 10 marks)** **(14 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 **(12 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 **(12 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.

LIST OF BOOKS

Compulsory Reading:

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.

Additional / Optional Reading:

9) Palmer, J.M. (1984). Anatomy for Speech and Hearing, (3rd Ed.). New York: Harper and Row.

10) Perkins, W.H. and Kent, R.D. (1986). Textbook of Functional Anatomy of Speech, Language and Hearing. London: Taylor and Francis.

11) Gray's Anatomy. (37th Ed.). Williams Warwick and Dyson Banniser. (1989). Churchill Livingstone.

SEMESTER I

B 1.5 CLINICAL PRACTICUM- Speech Language Pathology-I

At the end of Semester **I**, the student should be able to carry out the following –

1. Taking case history of a minimum of 10 individuals (5 normal & 5 clients with complaints of speech-language problems)

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

3. Conduct Oral Peripheral Mechanism examination on at least 5 normal and 5 children/adults with speech language complaints

4. Analyze the following in normal subjects :

    - Pitch – normal / high / low
    - Loudness - normal / loud / soft
    - Quality – normal / hoarse / harsh / breathy / hyper - nasal / hypo –nasal
    - Rate of speech - – normal / fast / slow
    - Articulation – normal / abnormal
    - Fluency – normal / abnormal
    - Intelligibility – using the AYJNIHH intelligibility rating scale

5. Use varying range of pitch and loudness

    - Measure F0, Vital capacity, phonation duration, rate of speech, Alternate Motion Rates and Sequential Motion Rates, s/z ratio in 5 normal individuals

6. Measure in 2 normal samples (with the help of video or live)
    - Mean Length of Utterance (MLU)
    - Syllable structure
    - Syntactic structures
    - Communication intent

7. Use proformae for the following disorders:
    - Articulation
    - Voice
    - Fluency
    - Cleft lip and palate
    - Child language assessment

8. Use scale / test for :

- Receptive language skills
- Expressive language skills

Receptive Expressive Emergent Language Scale (REELS)
3-Dimensional Language Acquisition Test (3DLAT)
Scales of Early Communication Skills for Hearing impaired children (SECS) and Indian tests

Observation of a minimum of 5 diagnostic cases, 5 therapy cases

Writing of observation reports of the above

Maintenance of a clinical diary

Maintenance of a clinical work record to be submitted at the end of the term

SEMESTER I
B 1.6 CLINICAL PRACTICUM-Audiology- I

At the end of Semester **I**, the student should be exposed and be able to carry out the following:

1. Public information materials (videos, pamphlets, booklets etc.)
2. Taking case histories of 10 adults and 10 children with normal hearing & with hearing impairment under supervision.
3. Analyse 10-15 case histories of adults and children with hearing impairment.
4. Undergo pure-tone audiometry. Become familiar with different types of sound stimuli used for assessment of hearing and sound generator softwares.
5. Identify the different types of audiometers (at least 1 portable & 1 diagnostic) and their accessories referring to their respective manuals. Get familiar with the various parts of audiometers and their functions. Carry out listening checks of audiometers. Trouble-shoot audiometers. List the different earphone/ear cushion combination, BC vibrator, study the same and report the status of the same.
6. Prepare 0 dB HL equivalent chart with different earphone/ear cushion combinations.

SEMESTER II
B 2.1 SPEECH LANGUAGE DIAGNOSTICS AND THERAPEUTICS

(80+20 marks) **(Total = 64 hrs)**

Objectives

After studying this paper at the end of the semester, the student should be able to understand the following –

1. Importance of case history, diagnostics and therapeutic approaches
2. Taking case history and therapy in general
3. Will get theoretical backup for clinical documentation

A. Speech language diagnostics

Unit 1 **(12 hrs)**

1. Case history – need for the case history – essential factors to be included in the case history form – comparison of adults vs. children case history – usefulness of the case history
2. Basic terminologies and concepts
   - Introduction to diagnostics
   - Terminologies in the diagnostic process
   - General principles of diagnosis
   - Diagnostic setup and tools

Unit 2 **(14 hrs)**

1. Diagnostic approaches and methods
   - Approaches to diagnosis – case history, need for the case history, essential factors to be included in the case history form, comparison of adults vs. children case history, usefulness of the case history.
   - Interview – principles and techniques
   - Self-reports, questionnaire, observations.
   - Diagnostic models – SLPM, Wepman, Bloom and Lahey
   - Types of diagnoses – Clinical diagnosis, direct diagnosis, differential diagnosis, diagnosis by treatment, diagnosis by exclusion, team diagnosis, instrumental diagnosis, provocative diagnosis, Provisional diagnosis; advantage/disadvantages
   - Characteristics of a good clinician as diagnostic

B. Speech therapeutics

Unit 3 **(12 hrs)**

1. Basic concepts of therapeutics
   - Terminologies in speech therapeutics
   - General principles of speech and language therapy
   - Speech therapy set-up
   - Individual and group therapy
   - Integrated and inclusive education

Unit 4 **(14 hrs)**

1. Procedures for speech-language therapy
   - Approaches to speech and language therapy – formal, informal and eclectic approaches
   - Types of speech and language therapy
   - Planning for speech and language therapy – goals, steps, procedures, activities
   - Techniques for:
     - ¾ Speech and language therapy for various disorders of speech and language
     - ¾ Importance of reinforcement principles and strategies in speech and language therapy, types and schedules of rewards and punishment

Unit 5 **(12 hrs)**

1. Clinical documentation and professional codes
   - Documentation of diagnostic, clinical and referral reports
   - Introduction to parent counseling, facilitation of parent participation and transfer of skills, follow-up
   - Evaluation of therapy outcome
   - Ethics in diagnosis and speech language therapy
   - Self-assessment and characteristics of a clinician.

LIST OF BOOKS

Compulsory Reading:

1) Meyer, S.M. (1998). Survival guide for the beginning speech-language clinician. Maryland: Aspen Publishers.
2) Owens, R.E. (1999). Language disorders: Functional approach to assessment and intervention. Boston: Allyn & Bacon Inc.
3) Tomblin, E. et.al. (1994). Diagnosis in Speech language pathology. San Diego: Singular Publishing Inc.

4) Shipley, K.G., 7 Mcafer, J.G. (1998). Assessment in speech language pathology: A resource manual. San Diego: Singular Pub Inc.
5) Klein, H.B., & Nelson, M. (1994). Intervention planning for children with communication disorders: A guide for clinical practicum and professional practice. New Jersey. Prentice Hall.

Additional / Optional Reading:

6) Frattali, C.M. (1998). Measuring outcomes in speech language pathology. New York: Thieme.

7) Shames, G.H. (2000). Counselling the communicatively disabled and their families. Boston: Allyn & Bacon.

8) Hegde, M.N. (1985). Treatment procedures in communicative disorders. Texas. Pro Ed.

9) Darley, F.L., & Spriesterbach (1978). Diagnostic methods in Speech Pathology. San Diego: Singular Pub Inc.

10) Leith, W.R. (1993). Clinical methods in communicative disorders. Texas. Pro. Ed.

SEMESTER II

B 2.2 INTRODUCTION TO AUDIOLOGY & AUDITORY TESTS

(80+20 marks) **(Total = 64 hrs)**

After studying this paper at the end of the semester, the student should be able to understand the following –

Unit 1: **(14 hours)**

- Pure Tone audiometry: Need and scope
- Instrumentation
- Standards
- Different types of transducers
- Permissible ambient noise levels for audiometric testing
- Calibration: Biological and instrumental for AC & BC transducers

Unit 2: **(14 hours)**

- Classification of audiograms
- Sound field & closed field testing
- Factors affecting AC & BC testing
- Screening Vs Diagnostic pure tone testing
- Extended high frequency testing & its interpretation

Unit 3: **(12 hours)**

- Masking: Definition, types of masking, types of noises, critical band concept,
- Terminology related to masking: Test ear, non-test ear, masker, maskee, crossover, cross hearing and shadow curve
- Interaural attenuation; Factors affecting IA; Criteria for masking during AC & BC
- Factors determining amount of masking noise, AB gap in masked ear, masking dilemma in bilateral symmetrical conduction hearing loss.
- Fusion Inferred Test (FIT)

Unit 4: **(12 hours)**

- Orientation to speech audiometry
- Need for speech audiometry
- Speech recognition threshold, speech identification score, UCL, MCL, dynamic range, articulation index
- Tests developed in India and abroad
- Factors affecting speech audiometry
- Limitations of speech audiometry
- Masking for speech audiometry
- PI-PB function

Unit 5: **(12 hours)**

- Acoustics of Rooms. Sound propagation in outdoors and indoors.
- Direct, early and reverberant sound. Calculation of reverberation time.
- Air absorption. Background noise.
- Loudspeaker placement and directivity.
- Sound images and multiple sources.
- Sound field in listening rooms. Quadraphonic sound.
- Listening with earphones. Pressure field, free field and diffused field.
- Audiometric test rooms – Basic requirements concept and structure – transmission loss,
- NRC rating – Standards for sound treated rooms – Basic requirements, concept and structure – standards.
- Classrooms of hearing impaired children – Basic requirements, concept and structure – standards.

LIST OF BOOKS

Compulsory Reading:

1. Hodgson, H.R. (1980) Basic Audiologic Evaluation, London Williams and Wilkins.
2. Martin, F.N. (1991), Introduction to Audiology, IV Edition, New Jersey: Frentice Hall.
3. Martin, H (1987), Speech Audiometry. Whurr Publisher, London
4. Newby, H.A. (1985), Audiology, New York: Appletion-Century-Crofts.
5. Testing, interpretation and recording - ISHA Battery (1990). ISHA publication.

Additional Reading:

1. Beagly, H.A. (Ed.) (1981). Audiology and Audiological Medicine. Vol. 1, Oxford University Press.
2. Bess and Humes (1990) Audiology - Fundamental. Williams and Wilkins, London.
3. Davis and Silverman, (Latest Edition). Hearing and deafness. Holt, Rinehats & Winston, London.
4. Rose, D.M. (Ed.) 1978), Audiological Assessment, New Jersey: Prentice Hill.
5. Relevant BIS documents

SEMESTER II
B 2.3 MANAGEMENT OF THE HEARING IMPAIRED

(80+20 marks) **(Total = 64 hrs)**

Unit 1 **(14 hrs)**

- Definitions and goals of rehabilitation & aural rehabilitation
- Early identification and its importance in aural rehabilitation
- Unisensory Vs Multisensory approach
- Manual Vs oral form of communication for children with hearing impairment
- Total communication

Unit 2 **(12 hrs)**

- Methods of teaching language to the hearing impaired
    - Natural method
    - Structured method
    - Computer aided method

Unit 3 **(14 hrs)**

- Educational problems of children with hearing impairment in India
- Educational placement of hearing impaired children
- Criteria for recommending the various educational placements
- Factors affecting their outcome
- Counseling the parents and teachers regarding the education of the hearing handicapped
- Parent Infant Training Programme (PIP) & Mother's Training Programme, Home training –need, preparation of lessons; correspondence programs (John Tracey Clinic, SKI-HI), follow up

Unit 4 **(14 hrs)**

- Introduction to hearing aid technology: Parts of hearing aids & its functions
- Type of hearing aids:
    - Body level Vs ear level
    - Monaural Vs Binaural Vs Pseudobinaural
    - Directional hearing aids Vs modular hearing aids
- Classroom amplification devices; Group amplification systems– hard wired, induction loop, FM, infrared rays.
- Setting up class rooms for the hearing handicapped
- Classroom acoustics preferential seating and adequate illumination

Unit 5 **(10 hrs)**

- Ear moulds: Importance, types (hard, soft), procedure of making each type of ear mould, styles of ear moulds, criteria for selection of one style over the other, ear mould modifications, EAC of hearing aid along with ear mould.

- Importance of counseling for users & parents – importance of harness, BTE loops. Tips to facilitate acceptance of hearing aids, battery life, battery charger. Counseling for geriatric population, Trouble shooting of hearing aids

LIST OF BOOKS

Compulsory Reading:

1. Sanders, D. A. (1993). Management of Hearing Handicap; Infants to Elderly, 3rd Ed., New Jersey, Prentice Hall.

2. Tucker, I., & Nolan, M. (1984). Educational Audiology. London: Croom Helm, Chapter.10.

3. Markides A (1977) Binaural hearing aids, Academic Press Inc., London.

4. Hodgson HR and Skinner (PH) (1977, 1981), Hearing aid Assessment and use in audiologic habilitation, Williams and Wilkins, Baltimore.

5. Pollack M. (1980). Amplification for the hearing impaired. NY: Grune and Stratton.

Additional Reading:

1. Davis, J.M. and Hardick, E.J. (1981). Rehabilitative Audiology for Children and Adults. New York: John Wiley and Sons.

2. Ross, M. Brackett, D. and Maxon, A.B. (1991). Assessment and management of mainstreamed hearing-impairment children: Principles and practice. Austin: Pro.Ed.

3. Lynas, W. (2000). Communication options. In J. Stokes (Ed.), Hearing impaired infants – Support in the first eighteen months. London: Whurr Publishers Ltd.

4. Sims, L.G., Walter, G.G., and Whitehead, R.L. (1981). Deafness and Communication: Assessment and Training. Baltimore: Williams and Wilkins.

5. Alpiner, J.G. (1982). Handbook of Adult Rehabilitative Audiology. Baltimore: Williams and Wilkins.

6. Chermak, G.D. (1981). Handbook of Audiological Rehabilitation. C.C.Thomas.

7. Ebbin, J.B. (1974). Critical Age in Hearing. In C.Griffiths (Ed), Proceeding of the International Conference on Auditory Techniques. Illinois: Charles C. Thomas.

8. Griffiths, C. (1974). Early Identification - Plus the Auditory Approach. In C. Griffths (Ed.), Proceeding of the International Conference on Auditory Techniques. Illinois: Charles C. Thomas.

9. Borastein, H. (1977). Systems of Sign. In L.J. Bradford & W.G. Hardy (Eds.), Hearing and Hearing-Impairment. New York: Grune and Stratton Inc.

10. Hull, R.H. (Ed). (1982). Rehabilitative Audiology. New York: Grune and Stratton Inc.

11. Fitzgerald, E. (1929). Straight Language for the Deaf. McClure.

12. Jackson, A. (1981). Ways and Means-3. Hearing-Impairment a Resource Book of Information, Technical Aids, Teaching Material, and Methods used in the Education of Hearing-Impaired Children. Hong Kong: Somerset Education Authority.

13. Tebbs, T. (1978). Ways and Means: A Resource Book of Aids, Methods, Materials, Materials and Systems for use with the Language Retarded Child. Hong Kong: Somerset Education Authority.

14. Correspondence Program for Parents of the Deaf, John Tracy clinic.

15. Nix, G.W. (1976) Mainstream Education for Hearing-Impaired Children and Youth. New York: Grune and Stratton Inc.

16. Ross, M. Brackett, D. and Maxon, A.B. (1991). Assessment and management of mainstreamed hearing-impairment children: Principles and practice. Austin: Pro.Ed.

17. Webster, A. & Ellwood, J. (1985). The Hearing-Impaired Child in the Ordinary School. London: Croom Helm.

SEMESTER II
B 2.4 PSYCHOLOGY RELATED TO SPEECH AND HEARING

(80+20 marks) **(64 hrs)**

Objectives

After studying this paper at the end of the semester, the student should be able to understand the following –

- Developmental Psychology
- Psychology of learning
- Cognitive issues in the field of speech and hearing

Unit 1 **(10 hrs)**

Introduction to psychology- Definition, History and perspectives, Branches and scope, application of psychology in the field of speech and hearing.
Introduction to Clinical psychology – Definition, Perspectives and models of mental disorders

Unit 2 **(14 hrs)**

Psychology of learning – Introduction, Definition of learning, Theories of learning, Classical conditioning, Operant conditioning and Social learning.
Application of learning theories in the field of speech and hearing (therapeutic, educational and rehabilitative applications).

Unit 3 **(14 hrs)**

Cognitive Psychology – Introduction, Definition and theoretical perspectives (David Rumelhart and David Mc Clelland, Noam Chomsky, George miller, Allan Newell).
Applications of cognitive psychology in the field of speech and hearing.
Neuropsychology – Introduction, definition, principles of neuropsychological assessment, diagnosis and rehabilitation.
Applications of neuropsychology in the field of speech and hearing.

Unit 4 **(12 hrs)**

Psychodiagnostics – Case history taking, Mental status examination, behavioural analysis, psychological testing.
Counselling- Meaning and definition, types of counseling, Counseling in rehabilitation practice.

Unit 5 **(14 hrs)**

Developmental psychology:
Introduction, Definition, Principles, Motor development, Emotional development Cognitive development- Definition, Piaget's theory

Play as a therapeutic tool
Personality development- Introduction, Stages, Hazards

LIST OF BOOKS

Compulsory Reading:

1) Hurlock, E.B. (1981). Child development VI Ed. Mc Graw Hill International Book Co.

2) Morgon C.T., King R.A., Robinson N.M. Introduction to Psychology. Tata McGraw Hill Publishing Co.

3) Coleman J.C. Abnormal Psychology and Modern Life, Taraporevala Sons &

Co. Additional/Optional Reading:

4) Siegal M.G. (Ed). (1987). Psychological Testing from Early Childhood Through Adolescence. International Universities Press.

5) Kline, P. (1993). The Handbook of Psychological Testing, Routledge,

6) Anastasi, A. (1999). Psychological testing, London: Freeman

SEMESTER II

B 2.5 CLINICAL PRACTICUM- Speech Language Pathology-II

At the end of Semester **II**, the student should be able to carry out the following –

1) Take case history of 10 individuals (5 normal & 5 cases with complaints of speech-language problems)

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

3) Conduct Oral Peripheral Mechanism examination on at least 5 normals and 5 children/adults with speech language complaints

4) Observation of therapy of 10 clients with speech language disorders.

5) Observation of a minimum of 5 diagnostic clients and 5 therapy clients

6) Developing therapy material specific to 10 clients they have observed

7) Writing of observation reports of the above

8) Maintenance of a clinical diary

9) Maintenance of a clinical work record to be submitted at the end of the term

SEMESTER II
B 2.6 CLINICAL PRACTICUM – Audiology- II

At the end of Semester **II**, the student should be exposed and be able to carry out the following:

1. Obtain audiograms of 10 normal subjects.

2. Observe /participate during audiological evaluation on a variety of cases under supervision. Plot audiograms, calculate inter-aural attenuation, occlusion effect.

3. Obtain audiograms under supervision on 20 adult clients (AC & BC).

4. Obtain audiograms with masking (5 cases)

5. Classify audiograms as per:
    a. Nature of hearing loss
    b. Degree of hearing loss
    c. Configuration of hearing loss

6. Observe calibration of audiometers (Demonstration) – AC/BC/Sound field, instruments used, identifying the instruments, combination of equipments for different types of calibration, preparing correction charts.

SEMESTER II

COMMUNICATIVE ENGLISH AND SOFT SKILLS

Teaching Schedule

Contact Programme of 12 periods of 1 hour 30 minutes ea
Semester-I for all PG Courses

Objectives

i) to hone students communication skills and provide them
job skills
ii) to impart strategies for effective written communication
iii) to train students in soft skills and to prepare them for aca
professional demands

SYLLABUS

Unit I Oral and Aural Skills

A. Sounds of English Vowels sounds and Constant sounds
B. Word Accent and Connected Speech – Contractions, Quest
C. Listening for information; taking notes while listening to lect
(Use of Dictionary with CD-Rom for phonetic symbols, pron
and listening practice)

Unit II Writing Skills

A. Sentence Writing and Paragraph Writing; use of linkers and ap
vocabulary
B. Business Letters and E-mail (writing & etiquette)
C. Descriptive writing (describing a person, product and process)

UNIT III Job Skills

i) Group discussions and debates
ii) Presentation skills – Kinesis
iii) Interview skills

UNIT IV SOFT SKILLS

i) Interpersonal communication – Verbal and Non-verbal, etique
ii) Critical thinking
iii) Team work

Suggested reading:

1. English for Success, Suresh Kumar et al., Cambridge Un Press India Pvt. Ltd., 2010.
2. Communication Skills and Soft Skills: An Integrated Appı Dorling Kindersley (India) Pvt. Ltd., 2013.
3. Inter-Personal Communication by Radly – 1989
4. Soft Skills – AV Suresh Kumar –Rishi Publication – 2009
5. New Technologies in the Class Room. Dhanvel – McMillaı Publications - 2010