#### **BASLP**

#### **Outcomes of the program**

The outcomes of the BASLP program are to equip the students with knowledge and skills to

- Function as audiologists and speech-language pathologists in different work settings
- Understand concepts in speech, language, communication, hearing and disability
- Screen, evaluate, diagnose and assess the severity of different disorders related to speech, language, swallowing and hearing, manage speech, language, swallowing and hearing disorders across life span counsel persons with disorders of communication and their family members rehabilitate persons with speech, language, swallowing and hearing disorders
- Prevent speech, language, swallowing and hearing disorders, liaise with professionals in allied fields and other stake holders implement public awareness and education program,
- Undertake advocacy measures on behalf of and for persons with speech language and hearing disorders
- For detailed scope of practice and outcomes please see https://www.ishaindia.org.in/pdf/Scope\_of\_Practice.pdf

# COURSE OUTCOMES B.ASLP DEGREE PROGRAM STRUCTURE (CHOICE BASED CREDIT SYSTEM)

Sem No.	Course No.	Title of the Course	Outcomes
I	1.1	Communication Sciences-Speech &	After completion of the course students shall have:
		Language	Understanding of the relationship between Communication, Speech and Language
			Knowledge of physical, biological, social, psychological and linguistic bases of speech
			Understanding of normal speech and language development
			Understanding of causes related to speech and language disorders
			Knowledge of characteristics of speech and language disorders
	1.2	Communication Sciences – Audiology	After studying the paper the students are expected to realize the following:
			Explain the origin of audiology
			Take case history and explain the importance of case history in clinical diagnosis
			Explain the physical properties of sound and its psychophysical correlates
			Explain the pathological conditions that would cause hearing loss
			Explain the usefulness of tuning fork tests in identification of different type of hearing loss.
	1.3	Anatomy, Physiology and Pathology related to Speech- Language & Hearing	After completion of the course students shall have the understanding of:
			Anatomy of speech, language and hearing mechanism
			Physiological system different systems in speech, language and hearing
			General pathological conditions causing speech, language and hearing disorders
	1.4	1.4 Clinical Psychology	After completing this course, the student will be able to understand the
			Scope of clinical psychology and its significance for speech and hearing
			Concept of normality, abnormality and classification of abnormal behavior
			Cognitive, motor, emotional and social development
			Theories of learning and therapy techniques based on learning principles
			Neuropsychological assessment and rehabilitation
			Application of neuropsychology in the field of speech and hearing
			Basics of counselling
1	1.5	Electronics and Acoustics	After completing this course, the student will be able to understand the
			Concept and types of power supply for biomedical instruments

			Basic aspects of digital signal processing
			Theoretical basis of acoustics required for audiologists
			Functioning of computers and computing systems
II	2.1	Speech-Language Pathology -	After completing this course, the student will be able to
		Assessment & Management	Describe normal speech sound development and characterization of individuals
			with speech sound disorders.
			Perform phonological analysis and assessment of speech sound disorders.
			Plan intervention for individuals with speech sound disorders.
	2.2	Audiological Evaluation	After completing this course, the student will be able to
			Understand and carryout experiments to measure differential sensitivity loudness and pitch
			Take case history, administer the tuning fork tests and interpret the results
			Administer pure tone audiometry including masking on clinical population and
			Appreciate the theoretical back ground of it
			Carryout different tests involved in speech audiometry appreciate the theoretical background
			Carryout subjective calibration and daily listening checks of the audiometer
			Get adequate theoretical information necessary to understand concepts involved in
			objective calibration
	2.3	Linguistics & Phonetics	After completing this course, the student will be able to understand
			Different branches and aspects of linguistics
			Characteristics and functions of language
			Different branches of phonetics, applied linguistics, and phonology, morphology, syntax, semantics, pragmatics
			Acquisition of language and factors affecting it
			Bi/multilingualism and related issues
	2.4	Otolaryngology	After completing this course, the student will be able to understand the
			Causes, signs, symptoms, pathophysiology and management of diseases of external, middle and inner ear leading to hearing loss.
			Causes, signs, symptoms, pathophysiology and management of diseases of laryngeal and articulatory systems

	2.5	Pediatrics & Genetics/Sign Language/	After studying the course, a student will have:
		Community Based Rehabilitation	A basic idea about the role of genetics in Speech-Language and Hearing
			Knowledge about the various concepts related to growth and development in pediatrics
	2.6	Speech and Drama/Clinical Counselling	After completing the course, the student should be able to:
			Discuss the two manual options with reference to Indian special schools.
			Discuss the relevant issues like literacy, training with reference to manual options.
			Describe manual options in the light of issues like language, culture and identify.
			To prepare students in the specific area of clinical counselling as a discipline seeking to understand counsellor-client relationships in the context of training and rehabilitation of individuals with disorders in human communication.
			To train students into practical skills and competencies required for mastering basics of clinical counselling in their practice for identification and management of persons with communication disorders
			To sensitize pupils on the ethical aspects of clinical counselling when dealing with individuals or their families with communication disorders.
			To develop ability for integrating counselling-based aspects in the field of research in communication disorders.
III	3.1	Voice and its Disorders	After completing this course, the students should be able to
			Describe characteristics of good, normal and abnormal voice and identify voice disorders
			Explain etiology related to voice problems, and its pathophysiology.
			Assess good, normal and abnormal voice.
			Provide counselling and therapy to individuals with voice disorders.
	3.2	Speech Sound Disorders	After completing this course, the student will be able to
			Describe normal speech sound development and characterization of individuals with speech sound disorders.
			Perform phonological analysis and assessment of speech sound disorders.
			Plan intervention for individuals with speech sound disorders.
	3.3	Diagnostic Audiology: Behavioral Tests	After completing this course, the student will be able to
			Choose individualized test battery for assessing cochlear pathology, retro cochlear pathology, functional hearing loss, CAPD, vestibular dysfunctions, tinnitus and hyperacusis
			Independently run the tests and interpret the results to identify the above conditions and also use the information for differential diagnosis
			Make adjustments in the test parameters to improve sensitivity and specificity of

			tests.  Make appropriate diagnosis based on the test results and suggest referrals.
	3.4	Educational Audiology	After studying the paper the students are expected to realize the following:
			Effects of hearing loss on development and learning To analyse the client scenarios and decide what kind of intervention to be provided to the child with hearing loss in the school
			Become aware of criteria for selection of appropriate educational placement of the child To apply principles of effective management in classroom/school settings
			Roles of educational agencies and legal agencies for children with disability in India
	3.5	Neurology	After completing this course, the student will be able to understand
		11 1 3	Basic concepts, anatomy and physiology of nervous system related to speech and hearing
			Neural organization –different structures and functions of various systems neurosensory
			and neuromotor controls in speech, language and hearing mechanisms
			Cerebral plasticity and dominance and its relevance for speech, language and hearing disorders
			Various neural diseases, lesions, nutritional and metabolic conditions affecting speech, language and hearing
			Basic principles and assessment procedures used in speech, language and hearing
			disorders associated with neurological conditions
			Basic principles and management procedures used in speech, language and hearing disorders associated with neurological conditions
IV	4.1	Fluency and its Disorders	After completion of the course, the student will be able to
			Understand the characteristics of fluency and its disorders
			Evaluate and diagnose fluency disorders
			Learn about the techniques for the management of fluency disorders
	4.2	Child Language Disorders	After completing this course, the student will be able to
			Explain the process of acquisition of language and factors that influence its development in children.
			Identify and assess language delay and deviance in children.
			Select appropriate strategies for intervention.
			Counsel and provide guidance to parents/caregivers of children with language
			disorders.
	4.3	Diagnostic Audiology: Physiological	After completing this course, the students will be able to
		Tests	Justify the need for using the different physiological tests in the audiological assessment Independently run the tests and interpret the results to detect the middle ear, cochlear and

			retro cochlear pathologies and also differentially diagnose
Design tailo			Design tailor-made test protocols in immittance, AEP's and OAE's as per the clinical need
			Make appropriate diagnosis based on the test results and suggest referrals.
	4.4	Rehabilitative Audiology	After completion of this course, candidate should be able to:
			List various types of auditory training approaches available for individuals with hearing
			impairment.
			Explain various types of speech reading tests and speech reading training procedures
			available.
			Select appropriate management option/s for Tinnitus and Hyperacusis.
			Select appropriate management technique/s for children with special needs.
			Select appropriate management strategies for older adults with hearing impairment
	4.5	Research Methods & Statistics	After completing this course, the student will be able to understand the
			Basic concept of research in the field of audiology and speech-language pathology
			Design and execution of research
			Ethical guidelines for conducting research

Sem No.	Course No.	Title of the Course
V	Motor Speech Disorders in children	After completing this course, the student will be able to Describe the characteristics of motor speech disorders in children such as cerebral palsy, childhood apraxia of speech and other childhood dysarthrias Assess the speech and non-speech aspects associated with the above conditions Plan and execute therapy strategies for children with motor speech disorders
	Structural Anomalies and Speech Disorders	After completing the course, the student will be able to Understand the characteristics of disorders with structural anomalies including speech Evaluate and diagnose the speech characteristics seen in these disorders Learn about the techniques for the management of speech disorders in these conditions
	Amplification Devices	After completion of this course the students should be able to Identify different types of hearing aids and explain their components Carry out Electro-acoustic measurement and categorize the hearing aids accordingly Describe different signal processing strategies and their relevance in different listening conditions

		Cross check whether the hearing aids meet the standards
	Pediatric Audiology	After completing this course, the student will be able to
		Describe auditory development
		List etiologies and relate them to different types of auditory disorders that may arise
		Explain different hearing screening/identification procedures and their application
		Elaborate on different aspects of pediatric behavioral and physiological/electrophysiological evaluation
	Pediatrics & Genetics/Sign Language/ Community Based Rehabilitation	Please refer course 2.5
	Public Speaking/Counselling/Performing Arts.	Please refer course 2.6
7I	Motor Speech Disorders in Adults	After completing the course, the student will be able to
		Understand the characteristics of acquired motor speech disorders in adults
		Evaluate and diagnose speech characteristics in acquired motor speech disorders
		Learn about the techniques for the management of speech and related errors in acquired motor speech disorders
	Language Disorders in Adults	After completing the course, the student will be able to
		Understand the characteristics of language disorders in adults
		Evaluate and diagnose speech characteristics in adults with language disorders
		Learn about the techniques for the management of speech and related errors in language disorders seen in adults
	Environmental Audiology	After studying the paper the students are expected to realize the following:
		Explain the effects of noise on various systems in the body, with special reference to auditory system.
		Select appropriate test/s and assess the effects of occupational noise.
		Independently assess various kinds of noise in the environment and its possible effects.
		Identify people at-risk of developing occupational hearing loss and plan effective hearing
		conservation program. Assess eligibility for compensation in individuals with NIHL.
	Implantable Hearing Devices and Hearing	After studying the paper the students are expected to realize the following:
	Aid Fitting	Select hearing aids based on pre selection factors and appropriate tests
		Select different assistive listening devices.

	Take ear impression and prepare the ear mould. Decide candidacy and select appropriate implantable device Trouble shoot hearing aids and counsel.
Speech-Language Pathology and Audiology in Practice	After completing the course, the student will able to List and describe the highlights of legislations relating to speech and hearing disabilities Incorporate ethical practices in professional activities. Provide information on the facilities available for the speech and hearing disabled including welfare measures and policies of government.  Describe different strategies to create awareness of speech and hearing impairment and facilities available to take care of them. Familiarizing different clinical setups for the rehabilitation of speech and hearing disorders, with reference to their requirement, protocols and role and responsibility of the professionals.  Familiarizing terminology, technology and methods used in public education, clinical practice including tele practice and camps.  And their application in speech and hearing service delivery.

## B.Ed.Spl.Ed. (HI)

## **Outcomes of the program**

The outcomes of the B.Ed.Spl.Ed. (HI) program are to equip the students with knowledge and skills to

- Acquire knowledge & skills about human development, contemporary Indian education, and pedagogy of various school subjects and assessment for learning.
- Acquire knowledge & skills about nature and educational needs of children with Hearing impairment.
- Develop conceptual understanding of education provisions and skills for working with children with hearing impairment in Special and inclusive settings.
- Enhance knowledge and skills for professional development

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# COURSE OUTCOMES B.Ed Spl. EDu. (HI) DEGREE PROGRAM STRUCTURE (CHOICE BASED CREDIT SYSTEM)

Course	Code	Course Title	Outcomes
I Semester			
Hard Core	24601	Human Growth and Development	<ul> <li>After studying this course the student- teachers will be able to:</li> <li>Explain the process of development with special focus on infancy, childhood and adolescence.</li> <li>Critically analyze developmental variations among children.</li> <li>Comprehend adolescence as a period of transition and threshold of adulthood.</li> <li>Analyze different factors influencing child development.</li> </ul>
Hard Core	24602	Contemporary India and Education	After completing this course the student-teachers will be able to:  Explain the history, nature and process and philosophy of education  Analyse the role of educational system in the context of modern ethos  Understand the concept of diversity  Develop an understanding of the trends, issues, and challenges faced by the contemporary Indian education in global context
Hard Core	24603	Introduction to Sensory Disabilities (VI & HI)	After completing this course, the student-teachers will be able to:  Name the different types of sensory impairments and its prevalence and describe the process of hearing & implications of various types of hearing loss.  Explain the issues & ways to address challenges in educating students with hearing loss.  Describe nature, characteristics & assessment of students with low vision & visual impairment.  Suggest educational placement and curricular strategies for students with low vision & visual impairment.

Hard Core	24604	Introduction to Neuro-Developmental Disabilities (LD, ID & ASD)	<ul> <li>After completing the course the student-teachers will be able to: <ul> <li>Discuss the characteristics and types of learning disability.</li> <li>Describe the tools, areas of assessment and apply intervention strategies to enhance learning.</li> <li>Explain the characteristics and types of intellectual disability.</li> <li>Describe the tools, areas of assessment and prepare and apply intervention strategies for independent living.</li> <li>Explain the characteristics and types of autism spectrum disorders.</li> <li>Describe the tools, areas of assessment and apply intervention strategies.</li> </ul> </li> </ul>
Hard Core	24605	Introduction to Locomotor & Multiple Disabilities (CP, MD & DB)	After completing the course the student-teachers will be able to:  Identify the persons with locomotor disabilities such as cerebral palsy, amputees, polio, leprosy cured, muscular dystrophies, neural and spinal defects and multiple disabilities.  Plan an effective programme for creating awareness about the persons with locomotor disabilities and multiple disabilities.  Plan an effective therapeutic and programme for the persons with locomotor disabilities and multiple disabilities and to refer for medical intervention if necessary.  Plan an effective educational programme and functional activities for the persons with locomotor disabilities and multiple disabilities.  Explicate the impact of deaf-blindness and practices for functional development.

		<ul> <li>To discuss communicative and language related needs with the understanding of its development and assessment.</li> <li>Understand the need for assessment of various processes involved in production of speech.</li> <li>Describe and identify different components of educational assessment and analyse various educational needs of individuals with hearing impairment.</li> </ul>
oft Core 24607	Skill-based Optional Course in Cross Disability & Inclusion:  • Community Based Rehabilitation (OR)  • Application of ICT in Classroom	After completing this course the student-teachers will be able to:  Explain the concept, principles and scope of community based rehabilitation.  Learn the strategies for promoting public participation in CBR.  Apply suitable methods for preparing persons with disability for rehabilitation within the community.  Provide need-based training to persons with disabilities.  Develop an understanding of the role of government and global agencies in CBR.  Learn about the role of media in enhancing community participation After completing the course the student teacher will be able to:  Gauge the varying dimensions in respect of ICT and Applications in Special Education.  Delineate the special roles of ICT Applications.  Acquire Familiarity with Different Modes of Computer-Based Learning

Hard Core	Learning, Teaching & Assessment	After completing this course the student-teachers will be able to:  Comprehend the theories of learning and intelligence and their applications for teaching children  Analyse the learning process, nature and theory of motivation  Describe the stages of teaching and learning and the role of teacher  Situate self in the teaching learning process  Analyze the scope and role of assessment in teaching learning process in order to introduce dynamic assessment scheme for educational set up towards enhanced learning
Hard Core	Inclusive Education	After completing the course the student-teachers will be able to:  • Explain the construct of inclusive education and the progression from segregation towards valuing & appreciating diversity in inclusive education.  • Explicate the national and key international policies and frameworks facilitating inclusive education.  • Enumerate the skills in adapting instructional strategies for teaching in mainstream classrooms.  • Describe the inclusive pedagogical practices and its relation to good teaching.  • Expound strategies for collaborative working and stakeholders support in implementing inclusive education.
Hard Core	Curriculum Designing, Adaptation & Evaluation	After completing the course the student-teachers will be able to  • Familiar with concept of curriculum and explain the importance of designing it for children with hearing impairment in the context of 21st century learning skills.  • Develop capacity of developing literacy skills of reading and writing in children with hearing impairment.  • Describe the need for curricular adaptation and decide suitable adaptation and undertake it.  • Appreciate the need for curricular evaluation and describe the tools and methods for evaluating it.

Soft Core	Pedagogy of School Subjects	After completing the course the student-teachers will be able to:
	• I: Science (OR)	<ul> <li>Explain the role of science in day to day life and its relevance to modern society</li> </ul>
	• II: Mathematics (OR)	<ul> <li>Describe the aims and objectives of teaching science at school level.</li> </ul>
	• III: Social Science	<ul> <li>Demonstrate and apply skills to select and use different methods of teaching</li> </ul>
		the content of sciences.
		<ul> <li>Demonstrate competencies of planning for teaching sciences, organizing</li> </ul>
		laboratory facilities and equipment designing pupil centered teaching learning
		experiences.
		<ul> <li>Demonstrate skills to design and use various evaluation tools to measure</li> </ul>
		learner achievement in sciences.
		After completing the course the student-teachers will be able to:
		Explain the nature of mathematics and its historical development with
		contribution of mathematicians.
		<ul> <li>Describe the aims and objectives of teaching mathematics at school level.</li> </ul>
		Demonstrate and apply skills to select and use different methods of teaching
		mathematics.
		Demonstrate competencies of planning for teaching mathematics, organizing
		laboratory facilities and equipment designing pupil centred teaching learning
		experiences.
		Demonstrate skills to design and use various evaluation tools to measure
		learner achievement in mathematics.
		<ul> <li>After completing the course the student-teachers will be able to:</li> <li>Explain the concept, nature and scope of social science.</li> </ul>
		<ul> <li>Develop competencies for designing unit and lesson plans, as well as tools of</li> </ul>
		evaluation for social science teaching.
		<ul> <li>Develop skills in preparation and use of support materials for effective social</li> </ul>
		science
		Develop the ability to organize co-curricular activities and community
		resources for promoting social science learning.

Soft Core	Pedagogy of School Subjects	ಉದ್ದೇಶಗಳು:
	• IV: Kannada (OR)	ಅಧ್ಯಯನಾಂತ್ಯದಲ್ಲಿ ಪ್ರತಿಶಿಕ್ಷಕ/ಶಿಕ್ಷಕಿ ಈಕೆಳಕಂಡ ವರ್ತನೆಗಳನ್ನುತೋರುತ್ತಾನೆ/ಳೆ:
	• V:English	• ಕನ್ನಡ ಭಾಷೆಯ ಸ್ವರೂಪವನ್ನು ಮತ್ತು ಕನ್ನಡ ಸಾಹಿತ್ಯದ ಪ್ರಕಾರಗಳ ಸ್ವರೂಪವನ್ನು ವಿವರಿಸುವುದು.
		• ಕನ್ನಡ ಬೋಧನೆಯ ಭಾಷಿಕ ಮತ್ತು ಸಾಹಿತ್ಯಿಕ ಮೌಲ್ಯಗಳನ್ನು ವಿವರಿಸಿವುದು ಮತ್ತು ಪ್ರಶಂಸಿಸುವುದು.
		• ಭಾಷಿಕ ಮತ್ತು ಸಾಹಿತ್ಯಿಕ ದೃಷ್ಟಿಯಿಂದ ಪಠ್ಯವನ್ನು ವಿಶ್ಲೇಸುವುದು.
		• ಭಾಷಾಂಶ ಮತ್ತು ಸಾಹಿತ್ಯಾಂಶಗಳ ಬೋಧನೋದ್ದೇಶಗಳನ್ನು ಮತ್ತು ನಿರ್ದಿಷ್ಟಕಗಳನ್ನು ರಚಿಸುವುದು.
		<ul> <li>ಭಾಷಾ ಮತ್ತು ಸಾಹಿತ್ಯಾಂಸ ಬೊಧನಾಕ್ರಮವನ್ನು ರೂಪಿಸುವುದು.</li> </ul>
		• ವಿವಿಧರೂಪದ ಕನ್ನಡ ಪಾಠಗಳ ಯೋಜನೆಯನ್ನು ತಯಾರಿಸುವುದು.
		• ಗ್ರಹಿಕೆಯ ಮತ್ತು ಅಭಿವ್ಯಕ್ತಿಯ ಕೌಶಲಗಳನ್ನು ಬೆಳೆಸುವ ಚಟುವಟಿಕೆಗಳನ್ನು ರೂಪಿಸುವುದು ಮತ್ತು
		ನಿರ್ವಹಿಸುವುದು <u>.</u>
		● ಪಠ್ಯಪುಸ್ತಕ ಮತ್ತು ಪ್ರಶ್ನೆಪತ್ರಿಕೆಗಳನ್ನು ಸಮೀಕ್ಷೆ ಮಾಡುವುದು <u>.</u>
		● ಮುದ್ರಣ ಸಂಪನ್ಮೂಲಗಳನ್ನು ಬಳಸುವ ಕ್ರಮವಿವರಿಸುವುದು <u>.</u>
		<ul> <li>ಭಾಷಾ ಚಟುವಟಿಕೆಗಳನ್ನು ಹಂತಾನುಸಾರಿ ಏರ್ಪಡಿಸುವ ಕ್ರಮನಿರೂಪಿಸುವುದು.</li> </ul>
		• ವಿವಿಧ ಬಗೆಯ ಪ್ರಶ್ನೆಗಳನ್ನು ರಚಿಸುವುದು, ನಿರ್ವಹಿಸುವುದು, ನೈದಾನಿಕಉದ್ದೇಶಕ್ಕೆಬಳಸಿಕೊಳ್ಳುವುದು
		<ul> <li>After completing the course the student-teachers will be able to:</li> <li>Explain the principles of language teaching, and evolution and trends in English literature.</li> <li>Prepare an instructional plan in English.</li> <li>Adapt various approaches and methods to teach English language.</li> <li>Use various techniques to evaluate the achievement of the learner in English.</li> </ul>

Soft Core -	Basic Research & Basic Statistics	After completing the course student-teachers will be able to:
EPC	(OR)	Describe the concept and relevance of research in education and special
	Basic Research & Essential Statistics	education.
	(OR)	Develop an understanding of the research process and acquire competencies
	Research & Basic Statistics	for conducting a research.
		Apply suitable measures for data organization and analysis.
		After completing the course student-teachers will be able to:
		Describe the concept and relevance of research in education and special
		education.
		Develop an understanding of the research process and acquire competencies
		for conducting a research.
		Apply suitable measures for data organization and analysis.  AC
		After completing the course student-teachers will be able to:
		Describe the concept and relevance of research in education and special education.
		Develop an understanding of the research process and acquire competencies
		for conducting a research.
** 10		Apply suitable measures for data organization and analysis.
Hard Core	Practical: Disability Specialization –	On completion of the course, the student teacher will be able to:
Practicum	Hearing Impairment – I (including	Develop understanding about him / herself.
	EPC on Understanding Self)	Develop the inner self and the professional identity as a teacher.
		Develop sensibility, dispositions and skills.
		Develop a holistic and integrated understanding of human self and personality
		Trace the development of self-concept throughout the life span.
		Describe major components of self-concept.
		Identify factors affecting self-concept.
III Semester		

Hard Core	24625	Intervention & Teaching Strategies	After completing the course the student-teachers will be able to:  • To understand about programmes for early intervention of infants and children with hearing impairment.  • Describe the need, stages and importance of auditory listening & Speech reading for facilitating development of spoken language of children with hearing impairment.  • Explain various approaches to teaching, strategies for speech intervention.  • Describe methods, techniques and options to facilitate language and communication.  • Explain the concept, principles and practices, linkages and outcomes of educational intervention.
Hard Core	24626	Technology & Disability	After completing the course the student-teachers will be able to:  • Enumerate various listening devices and describe ways of effective usage and maintenance.  • Create awareness and basic exposure to state-of-the-art technology for management of various aspects of speech.  • Narrate the range of technological applications that can be used for facilitating communication and language.  • Explain the present and future technologies facilitating the education of children with hearing impairment.  • Identify different resources (financial and human) to obtain technology.
Hard Core	24627	Psycho-social & Family Issues	After completing the course the student-teachers will be able to:  Explain psycho-social development of early childhood and role of family.  To understand the family needs and find self-ready to support families for empowering the child with disability.  Ensure family involvement in educational programs.  Ensure family-professional partnership

Hard Core – EPC	24628	Reading and Reflecting on Texts	<ul> <li>After completing the course student-teachers will be able to:</li> <li>Reflect upon current level of literacy skills of the self.</li> <li>Show interest and begin working upon basic skills required to be active readers in control of own comprehension.</li> <li>Show interest and begin working upon basic skills required to be independent writers, understanding adequate intent, audience and organization of the content.</li> <li>Prepare self to facilitate good reading writing in students across the ages.</li> <li>Find reading writing as learning and recreational tools rather than a course task.</li> </ul>
Soft Core	24629 24630	Skill-based Optional Course in Disability Specialisation – HI: • Communication Options – Oralism (OR) • Communication Options – Manual (Indian Sign Language)	After learning this course the student-teachers will be able to:  Discuss the Aural Oral Options with reference to persons with hearing impairment in the context of India.  Discuss the relevant issues like literacy, inclusion and training with reference to Oralism / Oral Rehabilitation.  Exhibit beginner level hands on skills in using these options.  Motivate self to learn and practice more skills leading to linguistic adequacy and fluency to be used while developing spoken language in children with hearing losses  After completing the course, the student-teachers should be able to:  Discuss the two manual options with reference to Indian special schools.  Discuss the relevant issues like literacy, inclusion and training with reference to manual options.  Describe manual options in the light of issues like language, culture and identify.  Exhibit beginner level hands on skills in using manual options.  Motivate self to learn and practice more skills leading to linguistic adequacy and fluency.

Soft Core -	24631	• Performing & Visual Arts in Education	After completing the course student-teachers will be able to:
EPC	24632	(OR)	<ul> <li>Exhibit Basic understanding in art appreciation, art expression and art</li> </ul>
	24633	•Visual Arts in Education (OR)	education.
		<ul> <li>Performing Arts in Education</li> </ul>	• Plan and implement facilitating strategies for students with and without special
			needs.
			<ul> <li>Discuss the adaptive strategies of artistic expression.</li> </ul>
			Discuss how art can enhance learning.
			After completing the course student-teachers will be able to:
			<ul> <li>Exhibit Basic understanding in art appreciation, art expression and art</li> </ul>
			education.
			<ul> <li>Plan and implement facilitating strategies for students with and without special</li> </ul>
			needs.
			<ul> <li>Discuss the adaptive strategies of artistic expression.</li> </ul>
			Discuss how art can enhance learning.
			After completing the course student-teachers will be able to:
			<ul> <li>Exhibit Basic understanding in art appreciation, art expression and art</li> </ul>
			education.
			Plan and implement facilitating strategies for students with and without special
			needs.
			<ul> <li>Discuss the adaptive strategies of artistic expression.</li> </ul>
			Discuss how art can enhance learning.

#### M. Sc (Audiology)

## **Outcomes of the program**

The outcomes of the M.Sc. (Aud) program are to equip the students with knowledge and skills to

- Function as teachers and researchers in institutions of higher learning,
- Diagnose and manage disorders of hearing and balance across life span,
- Counsel and guide persons with disorders of hearing and balance as well as their family members,
- Implement rehabilitation programs for persons with hearing and balance disorders, to function as the disability certification authority in the field, liaise with professionals in allied fields and other stake holders,
- Implement prevention and public education programs,
- Undertake advocacy measures on behalf of and for persons with hearing and balance disorders,
- Advise government and other institutions on legal and policy issues related to persons with hearing and balance disorders, and
- To establish and administer institutions of higher learning in the area.
- For detailed scope of practice and outcomes please see https://www.ishaindia.org.in/pdf/Scope\_of\_Practice.pdf

# COURSE OUTCOMES M.Sc. (Audiology) CBCS and CAGP Course Structure- 2016

Sl. No.	Course No.	Title of the Course	Outcomes
	1.1	Research methods and Statistics in Speech-Language & Hearing	After successful completion of this course the students should be able to:  1. Understand and deduce the use of research methods.  2. Choose appropriate research designs to carry out research in the field.  3. Apply statistics in the field of Speech-Language Pathology and Audiology.
	1.2	Auditory Perception	<ul><li>4. Critically evaluate the research designs and statistics in research publications.</li><li>After studying this course student will be familiarized:</li></ul>
I	1.2	Auditory Perception	<ol> <li>With various psycho-acoustical procedures used for assessing the functions of auditory system,</li> <li>With the effects of sensori neural hearing loss of varying degrees and configuration on different psycho-acoustic tasks.</li> <li>With outcomes and implications of these psycho-acoustic tasks.</li> <li>With analyses and interpretation of results from psychophysical experiments</li> </ol>
	1.3	Physiological Assessment of	After completing this course, the candidate shall be able to
		the Auditory System	1. Describe the bases of physiological tests
			2. Independently administer different physiological tests, interpret the findings
			3. Make need-based modifications in the test protocol
			4. Prepare research proposal to conduct research in the domain of physiological tests
	1.4 a	Auditory Physiology	After going through this subject, the student shall be able to describe:
	1.4 b	OR Technology for Speech- Language & Hearing	<ol> <li>The different parts of the peripheral auditory system and vestibular system</li> <li>The functioning of normal peripheral auditory system and vestibular system</li> <li>The methods used to study auditory physiology</li> <li>Give insights into the physiological basis of physiological tests used for hearing</li> </ol>

		assessment
		<ol> <li>Applying the knowledge of auditory physiology to take appropriate clinical decisions</li> </ol>
		After successful completion of the course student should be able to:
		<ol> <li>Give an overview of the latest technology involved in speech acoustics, signal processing and instrumentation.</li> </ol>
		<ol> <li>Provide fundamental concepts of the technology used in the instruments for diagnostics and therapeutics in Audiology, Speech Language Sciences and Pathology</li> </ol>
		3. Understand the basic technology used in hearing aids & cochlear implants.
		<ol> <li>Understand the principle of working and utility of equipment used for measurement of sound and calibration of diagnostic equipment.</li> </ol>
		5. Perform calibration of diagnostic instruments.
		<ol> <li>Lay the foundation of Information and Communication Technology (ICT) concepts and illustrate its applications in <i>Audiology</i>, Speech &amp; Language Sciences &amp; Pathology.</li> </ol>
1.5 a	Diseases of the ear and	After successful completion of the course student will
1.5 b	auditory pathway OR Clinical Counselling	<ol> <li>Understand clinical anatomy and physiology of the auditory system</li> <li>Obtain knowledge about the pathophysiology of diseases related to the ear.</li> <li>Have a holistic view about assessment and management of audio vestibular problems.</li> </ol>
		<ol> <li>After successful completion of the course student will be</li> <li>Prepare in the specific area of clinical counselling to understand counsellor-client relationships in the context of training and rehabilitation of individuals with communication disorders.</li> <li>Trained in practical skills and competencies required for mastering basics of clinical counselling for identification and management of persons with communication disorders.</li> <li>Sensitized on the ethical aspects of clinical counselling.</li> </ol>

			4. Able to integrating counselling based aspects in the field of research in communication disorders.
	2.1	Psychophysics of Audition	After completion of the course, the student should be able to:
			<ol> <li>Explain the basis of auditory object perception.</li> <li>Explain the influence of stimulus on auditory system with reference to adaptation and fatigue.</li> <li>Understand and describe different aspects of auditory space perception.</li> <li>Clinically implement the concept of binaural hearing in audiological assessment and management.</li> </ol>
	2.2	Electrophysiological Assessment of the Auditory	After completion of this course, students should be able to
		System	<ol> <li>Describe different auditory evoked potentials (AEPs), their clinical applications and generators sites.</li> </ol>
			2. Describe general principles in recording various AEPs
			3. Independently decide the need for recording a particular AEP in a clinical set- up.
			4. Independently set the parameters for recording and analyzing various AEPs.
	2.3 a	Neurophysiology of Hearing	After going through this course, the student shall be able to describe:
II			<ol> <li>The different parts of auditory afferent and efferent systems</li> <li>The functioning of auditory afferent and efferent systems</li> </ol>
			3. The methods used in auditory neurophysiology
			4. Physiological basis of electrophysiological tests used for hearing assessment
	0.01		5. The neurophysiological basis of clinical interpretation
	2.3 b	Speech Production	1. After completing this course, the student shall be able to:
			2. Describe the Physiology of Speech Production
			3. Discuss the Acoustic Theories
			4. Describe the Acoustic Characteristics of Various Speech Sounds
			5. Know the Application of Acoustic Analysis and Speech Synthesis

2.4 a	Age related changes in audiovestibular system	<ol> <li>After successful completion of this course, the student should be able to</li> <li>Explain the age-related changes in peripheral, central auditory and vestibular systems.</li> <li>Modify tests and interpret their outcomes taking into account an individual's age</li> </ol>
2.4 b	Clinical Behavior Analysis	<ul> <li>After successful completion of the course student will be:</li> <li>Prepared in the specific area of clinical behavior analysis, therapy or change programs for affected individuals with communication disorders.</li> <li>Trained in practical skills and competencies required for mastering basics of clinical behavior analysis in their practice for identification and management of persons</li> </ul>
		<ul> <li>with communication disorders</li> <li>Sensitized on the ethical aspects of clinical behavior analysis when dealing with individuals or their families with communication disorders.</li> <li>Able to integrate clinical behavior analysis and counselling based aspects in the field of research in communication disorders.</li> </ul>
2.5	Signal Processing Strategies and Their Implementation in Hearing Aids	<ul> <li>a) To give an overview of the latest technology of hearing aids</li> <li>b) To provide fundamental concepts of digital signal processing.</li> <li>c) To learn the various signal processing strategies used in hearing aids</li> <li>d) To understand and observe the effects of signal processing strategies.</li> <li>e) To learn the procedures for electroacoustic evaluation of hearing aids.</li> <li>f) To learn how to setup and use the equipment for measurement of spectral and temporal characteristics analysis of hearing aid output.</li> </ul>
	Prevention and Screening of Hearing Impairment	After studying this course, the students are expected to appreciate the:  1. Importance of prevention and early identification of hearing impairment 2. Ways to prevent hearing impairment 3. Ways to screen hearing impairment at early stage 4. Need for early rehabilitation

			5. Need for counselling and making appropriate referrals
	3.1	Implantable Devices for individuals with hearing impairment	<ul> <li>At the end of the course, the student shall be able to:</li> <li>Identify, describe the types of implantable hearing devices and describe the purpose(s) of each component used in implantable hearing devices.</li> <li>Select candidates for implantable hearing devices.</li> <li>Assess and counsel the benefit from implantable hearing devices.</li> <li>Suggest schemes / loans to obtain implantable hearing devices.</li> </ul>
III	3.2	Speech Perception	After completing this course, the candidate should be able to  1. Explain coding of speech in the auditory pathway in normal hearing individuals 2. Explain basic concepts regarding speech perception 3. Critically evaluate theories of speech perception and methods to synthesis speech 4. Describe the major and minor acoustic cues for speech perception in normal hearing individuals 5. Explain about speech perception in relation to short term memory 6. Describe aspects related to dichotic speech perception 7. Compare adult, infant and animal speech perception.
	3.3	Seminars in assessment of hearing impairment	<ol> <li>After completing this course, the student shall be able to describe:</li> <li>Sign and Symptoms related to various peripheral and central auditory disorders.</li> <li>The test battery for differential diagnosis of various auditory disorders.</li> <li>The relationship between histopathology of the disorder and audiological test findings.</li> <li>The different non-audiological tests and their importance in diagnosis of various auditory disorders.</li> <li>The findings, pathophysiology, probable cause and counsel regarding appropriate management options to the clients.</li> </ol>

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	3.4	Seminars in Rehabilitative	At the end of the course, the student shall
		Audiology	1. Know about various types of recent devices and advances in technology with respect to amplification/assistive devices.
			2. Know selection strategies and optimization of hearing aids, critically review selection procedures of the hearing device
			3. Be able to prepare the programs and intervention strategies as per the different needs of the clients having different auditory disorders across different age
			groups 4. List specific needs and know psychosocial and communicative demands and strategies to solve these
	3.5 a	Vestibular system: assessment & management	After passing this course, the student should be able to
	3.5 b	OR Auditory Physiology**	<ol> <li>Describe the anatomy and physiology of the human vestibular system</li> <li>Perform the tests for vestibular assessment and interpret the results</li> </ol>
	3.5 c	OR Technology for Speech-	3. Identify various vestibular pathologies and differentially diagnose one from the others
		Language & Hearing**	4. Carry-out vestibular rehabilitation and make appropriate referrals
			Syllabus as given in I semester (1.4 a) Syllabus as given in I semester (1.4 b)
	4.1	Assessment and Management	After completing this subject, the candidate should be able to
IV		of Central Auditory Processing Disorders	<ol> <li>List the types of CAPD and explain their physiological bases.</li> <li>List the signs and symptoms of CAPD and correlate them with different central auditory processes.</li> </ol>
l v			<ul><li>3. List different tests of CAPD and independently design appropriate test protocol for clients with different signs and symptoms.</li><li>4. List and explain the factors affecting the assessment.</li></ul>
			<ul><li>5. Explain construction and standardization of test of CAPD.</li><li>6. Explain management strategies and techniques for improving different central auditory processes.</li></ul>
	4.2	Audiology in Practice	After studying this course, student should be able to  1. Know the role of an Audiologist in different set-ups.  2. Liaison with other professionals in setting-up an audiological clinic.
	I	1	

		<ol> <li>Audit the practices in existing set-ups.</li> <li>Implement acts and legislations concerned with hearing disability.</li> <li>Know the role of Audiologist in legal matters.</li> </ol>
4.3	Speech Perception in Clinical Population	<ol> <li>After completing this course, the candidate should be able to</li> <li>Explain about speech perception in individuals with different configurations, types, degrees of hearing impairment</li> <li>Differentiate / compare perception of speech through different senses and listening devices</li> <li>Critically examine different methods to evaluate speech intelligibility, and describe the factors effecting speech intelligibility</li> <li>Apply information on speech intelligibility / speech perception in the field of speech and hearing</li> </ol>

#### M. Sc (SLP)

#### **Outcomes of the program**

The outcome of the M.Sc. (SLP) program are to equip the students with knowledge and skills to

- Function as teachers and researchers in institutions of higher learning.
- Diagnose and manage disorders of speech, language, and swallowing across life span,
- Counsel and guide persons with disorders of speech, language and swallowing as well as their family members,
- Implement rehabilitation programs for persons with speech, language and swallowing disorders,
- To function as the disability certification authority in the field, liaise with professionals in allied fields and other stake holders,
- Implement prevention and public education programs,
- Undertake advocacy measures on behalf of and for persons with speech, language and swallowing disorders,
- Advise government and other institutions on legal and policy issues related to persons with communication disorders, and
- To establish and administer institutions of higher learning
- For detailed scope of practice and outcomes please see https://www.ishaindia.org.in/pdf/Scope\_of\_Practice.pdf

# COURSE OUTCOMES M.Sc. (Speech-Language Pathology) CBCS and CAGP Structure – 2016

Sl. No.	Course No.	Title of the course	Outcomes
I	1.1	Research methods & Statistics in Speech-Language & Hearing	After successful completion of this course the students should be able to:  1. Understand and deduce the use of research methods. 2. Choose appropriate research designs to carry out research in the field. 3. Apply statistics in the field of Speech-Language Pathology and Audiology. 4. Critically evaluate the research designs and statistics in research publications.
	1.2	Speech Production	After completing this course, the student shall be able to:
			<ul> <li>Describe the Physiology of Speech Production and Measurement of Aerodynamic Aspects</li> <li>Discuss the Acoustic Theories and Instrumentation in Speech Production</li> <li>Describe the Acoustic Characteristics of Various Speech Sounds</li> <li>Know the Application of Acoustic Analysis and Speech Synthesis</li> </ul>
	1.3	Child Language Disorders	After completing this course, the student shall be able to:
			<ul> <li>Know Various Theories and Models of Language Acquisition in Monolingual/Bi/Multilingual Children</li> <li>Describe Developmental and Acquired Language Disorders in Children</li> <li>Discuss Issues Related to Differential Diagnosis and Assessment of Child Language Disorders</li> <li>Describe Various Management Approaches for Child Language Disorders.</li> <li>Critically Evaluate Research Articles in the Area of Child Language Disorders</li> </ul>
	1.4	Neuroscience of speech and language	<ul> <li>After completing this course, the student shall be able to:</li> <li>Describe the elements of Neuroscience pertaining to speech and language</li> <li>Discuss and interpret the neuro-diagnostic findings</li> <li>Explain the role of neurotransmitters in speech, language and its disorders</li> </ul>

			<ul> <li>Know the effect of aging on CNS structures and assess the functions related to speech and language</li> <li>Discuss research studies relevant to neuroscience in speech and language</li> <li>Know the use of few laboratory -based procedures</li> </ul>
	1.5	Clinical Linguistics & Multilingual Issues in Communication OR	<ul> <li>After studying this paper the student should be able to:</li> <li>Obtain the knowledge of basics of Clinical linguistics and clinical relevance of general linguistics.</li> <li>Discuss the acquisition process and related disabilities pertaining to various components of language</li> <li>Discuss general concepts, theoretical background and issues related to socio-linguistics</li> <li>Discuss the multilingual and multicultural issues in rehabilitation with special reference to India</li> <li>Carry out researches in the area of Linguistics and language disorders.</li> </ul>
		Technology for speech- language and hearing	<ul> <li>After going through this course the student will be able to explain:</li> <li>Latest technology involved in speech Acoustics, Signal processing, Instrumentation etc.</li> <li>fundamental concepts of the technology used in the instruments for diagnostics and therapeutics in Audiology, Speech Language Sciences and Pathology</li> <li>the basic technology used in hearing aids &amp; cochlear implants.</li> <li>the principle of working and functioning of equipments used for measurement of sounds and calibration of diagnostic equipments.</li> <li>the procedure for calibration of diagnostic instruments</li> <li>the foundation of ICT (Information and Communication Technology) concepts and illustrate the applications of ICT in Audiology, Speech &amp; Language Sciences &amp; Pathology</li> </ul>
II	2.1	Phonological disorders & Maxillofacial anomalies	<ul> <li>After completing this course, the student shall be able to:</li> <li>Explain the Nature and Measures of Coarticulation</li> <li>Describe the Nature of Phonological Development.</li> <li>Discuss the Recent Advances in Assessment and Treatment of Phonological Disorders</li> <li>Describe the Nature of Speech and Language Deficits in Persons with Cleft Palate</li> <li>Describe the Current Issues on Assessment of Velopharyngeal Closure and Resonatory Disorders</li> </ul>

		Discuss the Current Issues in Rehabilitation of Persons with Cleft Palate from the Perspectives of Speech Language Pathology and Allied Profession
2.2	Motor speech disorders	After completing the course, the student shall be able to:
		Describe the Neuroanatomical Bases for Speech Motor Control
		Explain the Models Relevant to Speech Motor Control
		Know the Methods for Assessment and Management of Speech Motor Disorders
		Critically Evaluate Research Articles Related to Speech Motor Disorders
2.3	Fluency and its Disorders	After completing this course, the student shall be able to:
		Explain the Nature and Types of Fluency Disorders
		Discuss the Theories and Models of Stuttering
		Describe, Diagnose and Treat Persons with Various Fluency Disorders
		Describe the Procedures Involved in Counseling and Guidance to Persons with Fluency
		Disorders and their Parents/Caregivers
		Critically Evaluate the Research Work in the Area of Fluency and its Disorders
2.4	Language, Cognition and Brain OR	After completing this course, the student shall be able to:
		• List the terminology and describe the definitions used in the area of language, cognition and brain
		Describe the various cognitive process involved in the information processing
		<ul> <li>Describe and assess various cognitive behaviours related to the study of language</li> </ul>
		• Lists different tests of Cognitive-Linguistic skills and independently design appropriate test
		protocol for clients with cognitive-communicative problems (in children and adults)
		Discuss the role of Meta-cognition, and evaluation of cognitive and meta-cognitive Behaviours
		Describe the various intervention for cognitive-communicative rehabilitation in children and adults
	Gerontology & Communication Disorders	After the completion of the course, students should be able to:
		Demonstrate the nature of gerontology.
		Demonstrate the diversity involved with aging and minority populations including older

2.5	Endoscopic evaluation of lesions of the larynx  OR	<ul> <li>women's needs, health status, and social status.</li> <li>Demonstrate the cognitive communication issues due to aging and disordered population</li> <li>Demonstrate the social contexts and consequences of physical aging.</li> <li>Describe the social policies addressing social problems related to older adults.</li> </ul> After Completing this Course, the Student shall be able to: <ul> <li>Understand the Lesions &amp; Pathological Conditions of the Larynx</li> <li>Observe Pre and Post Surgical Conditions of the Larynx.</li> <li>Observe Live Surgical Procedures of the Larynx (in the Operation Theatre).</li> </ul>
	Event related potentials in speech and language  OR	<ul> <li>After going through this course the student will be able to explain:</li> <li>Basic issues in event related potentials</li> <li>Recording, analysis, and interpretation various ERP data</li> <li>Application of various ERPS in speech and language</li> </ul>
	Dysphagia OR	<ul> <li>After completing the course, the student will be able to:</li> <li>Describe the neuroanatomical and neurophysiological bases for swallowing and its development</li> <li>Know the physiology of swallowing,</li> <li>Know the types of disorders leading to dysphagia</li> <li>Know the methods for assessment and management of dysphagia</li> <li>Critically evaluate research articles related to dysphagia</li> </ul>
	Clinical Behavior analysis	<ul> <li>After completion of the course, the student shall be able to:</li> <li>Describe the Specific Area of Clinical Behavior Analysis, Therapy or Change Programs for Affected Individuals with Communication Disorders.</li> <li>Define the Practical Skills and Competencies Required for Mastering Basics of Clinical Behavior Analysis in their Practice for Identification and Management of Persons with Communication Disorders.</li> <li>Know the Ethical Aspects of Clinical Behavior Analysis when Dealing with Individuals or their</li> </ul>

			<ul> <li>Families with Communication Disorders.</li> <li>Explain the Integration of Clinical Behavior Analysis and Counseling Based Aspects in the Field of Research in Communication Disorders.</li> </ul>
	2.6	Computer Science	<ul> <li>After Completion of this Course, the Student shall be able to:</li> <li>Explain the Applications of Information and Communication Technology in Speech Analysis, Speech Signal Processing, Instrumentation Etc.</li> <li>Define Fundamental Concepts of Computers &amp; Information Technology- Hardware and Software.</li> <li>Know the Principle of Operation and Functioning of Computer Based Diagnostic Equipments.</li> <li>Discuss the Technology to Employ ICT in Tele-Diagnosis and Tele-Rehabilitation.</li> <li>Know the Foundation of ICT (Information and Communication Technology) Concepts and Understand the Applications of ICT in Speech &amp; Language Sciences &amp; Pathology.</li> </ul>
		Information Management in Speech, Language and Hearing	After completion of the course, the student shall be able to:  Utilize Speech & Hearing Related Information Resources Know the Techniques of Information Literacy Know the Legal and Ethical Issues in Using Information Explain Scholarly Metrics, Tools and Techniques Critically Evaluate Information Resources and Quality Research Reports
III	3.1	Aphasia	<ul> <li>After completing this course, the student shall be able to:</li> <li>Describe the History of Aphasias</li> <li>Describe the Classification Systems in Aphasias</li> <li>Acquire Skills in Understanding the Linguistic and Non-Linguistic Impairments in Aphasias</li> <li>Acquire Skills in Differential Diagnosis and Assessment of Different Types of Aphasias</li> <li>Acquire Skills in Management of Persons with Aphasia</li> <li>Critically Analyze Scientific Articles Related to Various Aspects in the field of Aphasiology</li> </ul>
	3.2	Voice and its Disorders	After completion of this course, the student shall be able to:

		<ul> <li>Describe Vocal Anatomy and Physiology</li> <li>Explain and Measure the Parameters of Voice and its Disorders Using Various Tools</li> <li>Differentially Diagnose Various Voice Disorders</li> <li>Describe the Therapy Protocols for Persons with Voice Disorders</li> <li>Critically Evaluate Research Articles Related to Voice Disorders.</li> </ul>
3.3	Speech & Language Processing OR	After going through this course the student will be able to explain  1. Fundamentals of Speech and language processing 2. Theoretical understanding of speech language processing 3. Methods used in research on speech and language processing 4. Speech and language processing in clinical population
	Speech Language Perception	<ul> <li>After going through this course the student will be able to explain</li> <li>Fundamentals of Speech and language perception</li> <li>Theoretical understanding of speech language perception</li> <li>Methods used in research on speech and language perception</li> <li>Speech and language perception in clinical population</li> </ul>
3.4	Dysphagia  OR	Syllabus as given in II semester (2.5)
	Behavioural Assessment and management of CAPD	<ul> <li>After Completing this Course, the Student Shall be able to:</li> <li>List the Types of CAPD and Explain their Physiological Bases.</li> <li>List the Signs and Symptoms of CAPD and Correlate them with Different Central Auditory Processes.</li> <li>List Different Behavioural Tests of CAPD for Clients with Different Signs and Symptoms.</li> <li>List and Explain the Factors Affecting Behavioural Assessment.</li> <li>Explain Management Strategies And Techniques For Improving Different Central Auditory Processes.</li> </ul>
3.5	Event related potentials in speech and language	Syllabus as given in II semester (2.5)

		OR Clinical Linguistics & Multilingual Issues in Communication OR Technology for speech-language and hearing OR Sign Languages	After Completion of this Course, the Student Shall be able to:
		o.g.: Zanguago	<ul> <li>Explain the structure of Sign Languages</li> <li>Describe the finger spelling and basic vocabulary of sign languages</li> <li>Explain the morphology, syntax and phonology of sign languages</li> </ul>
IV	4.1	Adult Language disorders	<ul> <li>After completing the course, the student shall be able to:</li> <li>Describe Various Conditions in Adults Leading to Cognitive Communication Disorders</li> <li>Acquire Skills in Cognitive Linguistic Communicative Impairments and Differential Diagnosis of Cognitive Communication Disorders</li> <li>Acquire Skills in Issues Related to Assessment of Cognitive Communication Disorders</li> <li>Acquire Skills in Management of Cognitive Communication Disorders</li> <li>Critically Evaluate Research Articles Related to Cognitive Communication Disorders</li> </ul>
	4.2	Augmentative and Alternative Communication	<ul> <li>After Completion of this Course, the Student Shall be able to:</li> <li>Explain the Various Approaches and Methods Used in Augmentative and Alternative Communication (AAC)</li> <li>Describe the Assessment and Management of Candidates for AAC</li> <li>Explain The Role of AAC in Acquisition of Language Attributes</li> <li>Discuss The Role of AAC in the Indian Context and Relevance of Research.</li> </ul>
	4.3	Suprasegmentals & Music acoustics OR	<ul> <li>After going through this course the student will be able to explain</li> <li>Models of intonation, rhythm, and stress, and the various scales of music</li> <li>Methods used in research on suprasegmentals</li> <li>Aprosodia in clinical population</li> </ul>

	Music acoustics
Prosody & Music acoustics	After going through this course the student will be able to explain  1. Models of intonation, rhythm, and stress, and the various scales of music 2. Methods used in research on suprasegmentals 3. Aprosodia in clinical population
	4. Music acoustics