

Curriculum

Of

Professional Masters

in

Speech and Language Pathology

(PMSLP)

Session: 2014-15, 2015-16, 2016-17, 2017-2018



Department of Communication Disorders (DCD)
Faculty of Social Sciences
University of Dhaka, Dhaka-1000

Department of Communication Disorders
The Faculty of Social Sciences
University of Dhaka
Curriculum

Professional Masters in Speech and Language Pathology (PMSLP)

Academic Session: 2014-15, 2015-16, 2016-17, 2017-2018

1. ***Nomenclature***: Professional Masters in Speech and Language Pathology (PMSLP)
2. ***Duration of the program***: 4 Semesters
Each semester shall be of 19 weeks, of which -
 - I. 15 weeks for class teaching
 - II. 1 weeks break for preparation, and
 - III. 3 weeks for holding semester final examinations
3. ***Medium of Instruction***: Mixed (English / Bengali)
4. ***Admission Criteria***:
 - a. B.Sc (Speech and Language Therapy/Physiotherapy/Occupational Therapy)/MBBS degree/ BA (Linguistics with Clinical Linguistics/English with ELT and Applied Linguistics) /BSS (Social Sciences)/B.Ed (Special Education)/BSc (Nursing)/B.Sc (Science/Biological Sciences) /B.Pharm (Pharmacy)
 - b. Having minimum second class/CGPA 3.00 or equivalent in BA/BSS/B.Sc/B.Ed/B.Pharm/MBBS(degree completed)
5. ***Number of students***: 45 (forty)
6. ***Distribution of students (Quota)***:
 - a. 10- Speech and Language Therapy, Physiotherapy and Occupational Therapy
 - b. 10-Linguistics and English with Applied Linguistics
 - c. 05-Social Sciences and Communication Studies
 - d. 05-MBBS and Nursing
 - e. 05- Science, Biological Sciences and Pharmacy
 - f. 05-Special Education and Others
7. ***Courses of studies***:
 - a. ***Courses***: 18 courses (15 theoretical and 3 clinical practicum courses) with one dissertation of thesis course or 19 courses (16 theoretical and 3 clinical practicum courses) courses without thesis.

- b. *Thesis*: A thesis work equivalent to 2 courses will be done by the students at 4th semester.
- c. *Clinical Practicum*: In every semester except the 1st one each student will attend clinical practicum to attain sufficient practical knowledge and skill to handle persons with speech and language disorders.

8. **Criteria of passing**: As per university rules under semester system.

9. **Administering examination and other academic activities**:

a. *Counting credit hours*

In the semester system credit hours are counted on the basis of lecture class/ contact hours. 15 hours of teaching is equivalent to 1 credit hour and will be treated as 1 credit. Hence a full unit of a course with 4 credits needs 4 classes per week of 60 minutes duration each.

b. *Examination and Evaluation*

1. Evaluation and grading for a full unit course shall be determined on the basis of -

- I. Semester final examination
- II. Mid-semester examination or 2 class tests/presentations
- III. Oral Test
- IV. Assignment
- V. Class attendance

2. Marks Distribution

Serial no	Description	Marks for a Full Course	Marks for a half Course
1	Semester final examination	60	30
2	Mid-semester examination, or 2 class tests/presentations	20	10
3	Oral Test*	10	5
4	Assignment	5	2.5
5	Class attendance	5	2.5

* Since this masters program in speech and language pathology is a very professional and technical degree by nature, after completing every semester students need to be interviewed to be informed of the nature of their learning and skills. Hence arranging oral examination after every semester is the suitable one in this regard.

c. Grading structure for PMSLP degree program in a 4-point grading scale

Numerical grade (in percent)	Letter grade	Explanation	Grade point (In full unit course)
80 and above	A+	Excellent	4.00
75 to less than 80	A	Excellent	3.75
70 to less than 75	A-	Excellent	3.50
65 to less than 70	B+	Very Good	3.25
60 to less than 65	B	Very Good	3.00
55 to less than 60	B-	Very Good	2.75
50 to less than 55	C+	Good	2.50
45 to less than 50	C	Good	2.25
40 to less than 45	D	Passing	2.00
Less than 40	F	Failing	0.00
Incomplete*	I		0.00
Withdrawn**	W		0.00

* 'I' grade is indicative of a situation where a student is unable to complete the full requirements of the course for not being able to sit for the semester final examination. With the submission of a valid and authenticated evidence of such reason(s), and the recommendation of the course teacher, that particular student shall be allowed to complete the semester final examinations with the next batch. In one semester maximum two 'I' grades shall be allowed to a student.

** 'W' grade shall be awarded when a student is permitted to withdraw/drop a course/semester without penalty. Withdrawals without penalty are not permitted after the mid-semester examination. A student takes readmission in the semester concerned with the next batch by paying fees for the whole year.

d. Marking for class attendance

Attendance range	marks
90% and above	5.0
85% to 89%	4.5
80% to 84%	4.0
75% to 79%	3.5
70% to 74%	3.0
65% to 69%	2.5
60% to 64%	2.0

55% to 59%	1.5
50% to 54%	1.0
45% to 49%	0.5
Less than 45%	0.0

e. Teaching and Evaluation

1. Teaching

Two teachers/One teacher will be assigned for each full course, whereas a half unit course will be taught by one teacher.

2. Evaluation of exam sheet

The course teacher/s will evaluate the semester final examination, mid-semester examination, project/ presentation, and assignment.

10. **Attendance:** 80% in total theory-class and 90% in total clinical practicum

11. **Course Structure:**

1st Semester

Course No.	Title of the course	Marks
PMSLT 5101	Introduction to Linguistics and Cognition	100
PMSLT 5102	Introduction to Human Communication and Pragmatics	100
PMSLT 5103	Speech production, disorders and Clinical Linguistics	100
PMSLT 5104	Research Method and Statistics in Speech Therapy and Clinical Linguistics	100
PMSLT 5105	Neurology of Speech and Language	100

2nd Semester

Course No.	Title of the course	Marks
PMSLT 5201	Technology and Methods of investigating pathological language data	100
PMSLT 5202	Audiology and Hearing Science	100
PMSLT 5203	Acquired language disorders and Aphasiology	100
PMSLT 5204	Clinical Phonetics and motor speech disorders	100
PMSLT 5205	Clinical Practicum (Hearing, Aphasiology and motor speech disorders)	100

3rd Semester

Course No.	Title of the course	Marks
PMSLT 6301	Child Language Disorders: Dyslexia and ACA	100

PMSLT 6302	Developmental Language Disorders: Autism and mutism	100
PMSLT 6303	Developmental Language Disorders: SLI and others	100
PMSLT 6304	Voice Disorders and Dysphagia	100
PMSLT 6305	Clinical Practicum (Dyslexia, ACA, Autism, Dysphasia)	100

4th Semester

Course No.	Title of the course	Marks
PMSLT 6401	Fluency Disorders and Stuttering	100
PMSLT 6402	Nonverbal, music and Poetic Therapy for Speech and Language Disorders	100
PMSLT 6403	Clinical Practicum (Stuttering, nonverbal and music)	100
PMSLT 6404	Rehabilitation and Management of people with Speech and Language Disorders	200
PMSLT 6405 (alternative to the course MSTCL 6404)	Thesis	200

12. Detail of the courses

12.1 Name of the course

PMSLT 5101 Introduction to Linguistics and Cognition

12.1.1 Learning outcome of the course

Upon completion of the course the students will be able to-

- a. Know the underlying structure of a human cognition and language.
- b. Acquire the skill to interpret the basic features of a language.

12.1.2 Course Content

A. Introduction to Linguistics

75

Nature of Language: Characteristics, origin and basic properties

Writing System and language

Linguistics as a discipline: History, nature and characteristics

Core branches of linguistics: Phonetics and Phonology, morphology, Syntax, Semantics and pragmatics

Peripheral branches of Linguistics: Sociolinguistics, applied linguistics, psycholinguistics, clinical linguistics

Linguistics and profession

Cognition: A process of mental states
 Piaget's Theory of Cognitive Development
 Cognition and language development
 Cognition as social process

12.1.3 References

- Arif, H. and Ara, G. 2008. An Overview of the nature and history of Linguistics — the Science of Language. *The Dhaka University Studies*, vol. 64, no. 1, 45-62
- Fineh, G. 1998. *How to Study Linguistics*. London: McMillan
- Horsey, R. 2001. *101 key Ideas Linguistics*. London: Teach Yourself Books
- Lycan, W.G., (ed.). (1999). *Mind and Cognition: An Anthology*. Malden, Mass: Blackwell Publishers, Inc.
- Napoli, D. J. 1996. *Linguistics*. New York: Oxford University Press
- Sahu, N.S. 1996. *Aspects of Linguistics*. Bareilli: Prakash Book Depot
- Verma, S K & Krishnaswamy, N. 1989. *Modern Linguistics: An Introduction*. New Delhi: Oxford University Press
- Yule, G. 1985. *The Study of Language*. Cambridge: Cambridge University Press
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12.2 Name of the course

PMSLT 5102 Introduction to Human Communication and Pragmatics

12.2.1 Learning Outcome

Upon completion of the course the students will be able to-

- Describe fundamental features of human communication.
- Be familiar with core aspects of pragmatics with special reference to human communication.

12.2.2 Course Content

A. Communication Sciences

50

Communication: basic features

Taxonomy of human communication: social interaction, linguistic and extra linguistic communication, communication acts, principles of communication

Tools of human communication: cooperation, mental states and intentionality

Human Interpersonal communication: nature and characteristics

Fundamental characters of verbal and nonverbal communication

Generation and Comprehension of Communication acts

Communicative competence
Cultural views on communication
Sign language and communication

B. Pragmatics

50

Pragmatics: Definition, scope and nature
Pragmatics and its relation with semantics
Speech act theory: Austin and Searle's interpretation
Implicature: Gricean Maxims, Generalized Conversational Implicature, Explicature and Implicature
Discourse and conversation
Pragmatics and human cognition

12.2.3 References

Arif, H. 2012. On some definitions of Pragmatics and Semantics. *Journal of the Institute of Modern Languages*. Vol. 23, 53-65
Bara, B. G. 2010. *Cognitive pragmatics The Mental Process of Communication*. Massachusetts Institute of technology
Levinson, S. 1983. *Pragmatics*. London: CUP
Leech, G. 1983. *Principles of Pragmatics*. London: Longman
Samovar et al. 2009. *Communication between cultures*. Boston: Wadsworth
Searle, J.R. 1997. *Expression and Meaning*. Cambridge: Cambridge University Press
Searle, J. R. 1977. *Speech Acts*. Cambridge: Cambridge University Press
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12.3 Name of the Course

PMSLT 5103 Speech production, Disorders and Clinical Linguistics

12.3.1 Learning Outcome

Upon completion of this course the students will be able to-

- a. Explain the nature of speech produced by the vocal organs of human being
- b. Depict various types of speech and language disorders human beings frequently encounter.
- c. Know the basic characteristics of clinical linguistics.

12.3.2 Course Content

A. Speech production and disorders

50

Impairment-disability-handicap and disorders: features, characteristics and differences
Basics of speech
Speech, language and communication: features and differences
Speech perception and production mechanism
Acoustic features speech

Phonetic perception, Perception of vowels (formants, F0, band width, duration, factors affecting vowel perception, static and dynamic cues, effect of co articulation), perception of consonants (cues for different consonants, static and dynamic cues, factors affecting consonant perception, effect of co articulation)

Stages and word recognition (lexical concept, lexical access, phonological encoding, production)

Models of Speech and Language processing

A. *Clinical Linguistics and Speech and Language disorders* 50

Scope of Clinical Linguistics

Clinical Linguistics and relationship among Psycholinguistics and Neurolinguistics

Nature of Speech and language disorders

Phonetic and Phonological Disorders

Morphological Disorders

Syntactic Disorders

Semantic and Pragmatic Disorders

12.3.3 References

Arif, H. 2014. *Clinical Linguistics and Child Language*. Baden-Baden: Deutscher Wissenschafts-Verlag (DWV)

Arif, H. and Bol, G. W. 2008. Counting MLU in morphemes and MLU in words in a normally developing child and child with a language disorder: A comparative study. *The Dhaka University Journal of Linguistics, vol.1, no.1, 167-182*

Arbib, M.A., Caplan, D., & Marshall, J.C., (ed.) 1982. *Neural Models of Language Processes*. New York: Academic Press

Ball et. al (eds.) 2008. *The Handbook of clinical Linguistics*. Blackwell Publishing

Ball, M.J. and Lowry, O.M. 2001. *Methods in Clinical Phonetics*. London: Whurr Publishers

Durrand, J., and Laks, B., (eds.) 1999. *Phonetics, Phonology and Cognition*. Oxford University press

Grundy, K. 1981. *Linguistics in Clinical practice*. London: Whurr Publishers Ltd.

Hardcastle, W. J., and Laver, J. (eds.) 1999. *The Handbook of Phonetic Sciences*. Oxford: Blackwell Publishers

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12.4 Name of the Course

PMSLT 5104 Statistics and Research Method in Communication Sciences and Disorders

12.4.1 Learning Outcome

Upon completion of this course the students will be able to-

- a. Be familiar with the basics of statistics as well as its application to the field of speech therapy and clinical linguistics
- b. Get skill to interpret the analyzed statistical data of this field.

- c. Acquire the appropriate method in explaining the pathological speech and linguistic data.

12.4.2 Course Content

<i>a. Statistics</i>	50
Statistics: basic concepts	
Measure of variability	
Standard Score	
Theory of Probability	
Correlation	
Variance	
Non-parametric Statistics	

<i>b. Research Methods</i>	50
Methods and research in Behavioral sciences	
Basic of research	
Types of research	
Technique of sampling	
Techniques of equation	
Research Design	
Analysis and Interpretation	
The research report	

12.4.3 References

Carment, L. 2002. *Scientific thinking in speech and language therapy*. Lawrence Erlbaum Associates, Publishers

Hegde, M. N. 2006. *Clinical Research in Communicative Disorders*. Principles and Strategies. Singular Publishing

Oakes, M. P. 1998. *Statistics for Corpus Linguistics*. Edinburgh University Press

Portney, L.G. and Walkins, M. P. 1993. *Foundations of Clinical Research*. Connection: Appleton and Lange

Woods, A. Fletcher, P and Hughes, A 1986. *Statistics in Language studies*. Cambridge: University Press

Doehring, 1998. *Research strategies in human communication disorders*. Pro-ed Austin.

12.5 Name of the Course

PMSLT 5105 Neurology of Speech and Language

12.5.1 Learning Outcome

Upon completion of the course the students will be able to-

- a. Identify basic structure of central nervous system (CNS) of human being.
- b. Locate the specific speech and language areas in the brain.

12.5.2 Course Content

Neurology: basic concepts

The relation between speech and language

Anatomy of central nervous system

Neurotransmitters: Anatomy of the neuron, types of synapses, types of neurotransmitters, activation of neurotransmitters, neurotransmitters in normal and disordered population

Brain and language areas: speech, language and learning areas, cerebral hemispheres, cerebellum, cranial nerves, brainstem, spinal cord (surface as well as deep structures) and circuits,

Neurophysiological correlates: Hemispheric lateralization, Hemispheric Asymmetry, cerebral plasticity, cerebral maturation & its significance in development, Neuronal organization (area as well as function) in human beings and animals, Neuroanatomical organization in bilinguals.

Neurobiology of Aging: lexical concept, lexical access, phonological encoding production

Linguistics and the brain

12.5.3 References

Arbib, M. A., Caplan, D., and Marshall, J. C. (eds.) 1982. *Neural Models of Language Processes*. New York: Academic Press

Kuehn, L. and Baumbartner, (eds.) 1989. *Neural Bases of Speech, Hearing, and Language*. Bodton: College-Hill Press

Pulvermuller, F. 2002. *The Neuroscience of Language*. Cambridge University Press

Whitaker, H.A. (ed.) 2010. *Concise Encyclopedia of Brain and Language*. Oxford and Amsterdam: Elsevier Ltd

12.6 Name of the course

PMSLT 5201 Technology and Methods of investigating pathological linguistic data

12.6.1 Learning Outcome

Upon completion of this course the students will be able to—

- a. Get pragmatic information of appropriate technology used in medical science with special emphasis on pathological linguistic data
- b. Relate medical technology with the process of collecting pathological linguistic data.
- c. Acquire skills how to collect pathological linguistic data using various medical technology.

12.6.2 Course Content

A. Introduction

50

Medical technology: Introduction, basic concepts and importance

Medical technology and pathological linguistic data

Necessity, a relation approach, neurohistorical procedures

Fundamentals digital signal processing and communication system
 Analog and digital system
 Principles of digital signal processing
 Fundamentals of communication system
 Biomedical signals and signal processing
 Principles of generating acoustic stimuli, Evoked potentials, Electrodes and Transducers
 Techniques of speech processing and analysis
 Voices response system
 Speaker recognition system and speech recognition system
 Speech Synthesis methods

B. Technology for speech and language science 50

Radiological imaging
 Event Related Potentials (ERP) Techniques
 Magnetic imaging (MRI, FMRI, MEG)
 Electrophysiological procedures (evoked potentials, EEG, EMG etc)
 Imaging of brain metabolism (RCBF, SPECT, PET etc)
 CSF studies
 Behavioural measures (Dichotic listening)
 Tachistoscopic presentation
 Dihaptic studies

12.6.3 References

Hall, J. W. 1992. *Handbook of Auditory evoked responses*. Massachusetts: Allyn & Bacon
 Handy, T.C. (ed.) 2005. *Event-Related Potentials A Methods Handbook*. Cambridge: The MIT Press
 Millman. II 1972. *Integrated Electronics*. Tokyo: McGraw Hill
 Oppenheim and Schafer .1989. *Digital signal processing*. New Delhi: Prentice Hall of India
 Rabinette, M. S. and Slanke. L. L. (eds.) 1997. *Otoacoustic emissions Clinical applications*. New York: Thicme.

12.7 Name of the course

PMSLT 5202 Audiology and Hearing Science

12.7.1 Learning Outcome

Upon completion of this course the students will be able to—
 a. Identify the physiological features of auditory system
 b. Get basic knowledge of using hearing aids and their evolution process.
 c. Apply appropriate technology to improve auditory ability of persons with auditory disorders

12.7.2 Course Content

a. Introduction 40

Anatomy and physiology of human auditory system

External ear; Middle ear; Cochlea	
Auditory nerve	
Tonotopic organization; structure on internal auditory meatus; refractory period, adaptation, firing rates; and types of responses	
Vestibular system	
Anatomy and physiology; integration of sense in balance; vestibule ocular and spinal reflex	
Auditory cortex	
Neurobiological relationship between auditory cortex and other areas; neurophysiology of auditory areas; stimulus coding; role of auditory cortex in localization	
<i>b. Hearing Aids</i>	30
Hearing aids	
Components; classification; principles of analog, programmable and digital hearing aids; EAC; ear moulds	
Evolution of hearing aids	
Electroacoustic characteristics; national and international system; hearing aid evolution system	
Cochlear implant	
Types, description, design and features; surgical procedure and biological safety; assessment strategies; post-operative instruments; mapping; and outcomes	
<i>c. Diagnostic Audiology</i>	30

12.7.3 References

- Bellies, T.J. 2003. *Assessment & Management of central auditory processing disorders in the educational setting from science to practice*. USA: Singular Publishing Group
- Berlin, C.I. and Weyand, T.G. (eds.) 2003. *The Brain & sensory plasticity: Language acquisition and hearing*. Thomson/Delmer Learning
- Berlin C. I. (ed.) 1996. *Hair cells & hearing aids*. London: Singular Publishing Group
- Dallos, P., Popper, A.W. and Fry, R.R. (ed.) 1996. *The Cochlea*. New York: Springer-Venlag
- Davis 1990. *Hearing*. Washington University
- Durant, J.D and Lovrinic, J.H. 1977. *Bases of hearing Sciences*. Williams & Wilkins
- Ehret, G. Romand, R. (eds.) 1997. *The central auditory system*. New York: Oxford University Press
- Hall, J. W. III .1992. *Handbook of Auditory evoked responses*. Allyn & Bacon
- Rerben, E.W., Popper, A.N and Fay R.R. (eds.) 1998. *Development of the Auditory System*. New York: Springer Verlag.
- Sahley, T. L., Nodar, R. H. and Musiek, F. E. 1997. *Efferent auditory system structure and function*. USA: Singular Publishing Group.
- Sandlin, E. R. (ed.) 1995. *Handbook of hearing aid amplifications. Volume 1. Theoretical & technical considerations*. London: Singular Publishing group Inc.
- Syka, J. (ed.) 1997. *Acoustical signal processing in the central auditory system*. Plenum Press
- Velente, M. .1996. *Hearing aids standards, options and limitations*. New York: Thieme

12.8. Name of the course

PMSLT 5203 Acquired language disorders and Aphasiology

12.8.1 Learning Outcome

Upon completion of the course the students will be able to—

- a. Get acquainted with different acquired speech and language disorders
- b. Analyze fundamental symptoms of aphasia
- c. Use appropriate therapy to improve speech disorders of aphasics.

12.8.2 Course Content

Acquired language disorders

Introduction, symptoms, classifications

Essential aspects of acquired language disorders

Language and cerebral dominance; Lesion and language disorders; lesion size; lesion location and localization syndromes; speech language and brain

Introduction to Aphasia

Different perspective-linguistic, neurological, cognitive and pragmatic, bilingual and multilingual; neurophysiology; basic features

Linguistic impairment in aphasia

Phonological, morphological, semantic, agrammatic and paragrammatic aspects

Nonlinguistic and extra-linguistic impairment in aphasia

Investigation and assessment procedures in clinical Aphasiology

General principles; testing of verbal comprehension and nonverbal skill; testing of verbal expression and functional communication; testing and assessing bilingual patients; recent advancement

Management of aphasia therapy and rehabilitation

Principles of therapy; spontaneous recovery, specific treatment approaches and functional therapeutic approaches -Functional stimulation, compensatory behavior, interactive therapies, changing communicative context, cueing and priming in therapy, evidence based therapy, discourse analysis, facilitating communication/pragmatic therapy.

Advances in aphasia rehabilitation and treatment efficacy

12.8.3 References

Arif, H. 2014. *Clinical Linguistics and Child Language*. Baden-Baden: Deutscher Wissenschafts-Verlag (DWV)

Duchan, J. F. and Byng, S. 2004. *Challenging Aphasia Therapies*. Psychology Press

Goodglass, H. 1993. *Understanding Aphasia: Foundations of Neuropsychology series*. California: Academic Press Inc.

Paradis, M.(ed.) 1995. *Aspects of Bilingual Aphasia*. Great Yarmouth: Galliard (Printers) Ltd.

Whitaker, A.H., (ed.) 1997. *Agrammatism*. California: Singular Publishing Group Inc.

Whitworth A. Webster J. and Howard D. 2005. *Assessment & Intervention in Aphasia*. Psychology Press

12.9 Name of the course

PMSLT 5204 Clinical Phonetics and motor speech disorders

12.9.1 Learning Outcome

Upon completion of this course the students will be able to—

- a. Get understand the basic concepts of clinical phonetics.
- b. Explain various theories and methods of clinical phonetics and motor speech disorders.
- c. Apply pragmatic therapies in order to enhance the communicative potencies of persons suffering from motor speech disorders.

12.9.2 Course Content

- a. *Clinical Phonetics* 40

Clinical Phonetics

Characteristics and basic properties

Transcribing phonetic data

Transcribing disordered speech

Articulatory instrumentation

Articulatory analysis of disordered speech

Acoustic instrumentation

Acoustic analysis of disordered speech

Auditory and perceptual instrumentation

Auditory and perceptual analysis of disordered speech

- b. *Motor Speech Disorders* 40

Neurophysiology of motor speech disorders

Neurophysiology and functional development of sensory-motor control

Sensory motor processing in speech

Correlates of oral sensory-motor dynamics

Neural substrates and findings in Dysarthria and Apraxia

Development of motor speech disorders

Respiratory and laryngeal system

Models of speech processing in motor speech disorders with the application to dysarthria and apraxia

Dysarthria

Characteristics; assessment; differential diagnosis; management-

(Prosthetic, surgical, medical and Behavioural – facilitatory and compensatory)

Issues related vegetative therapy/sensory motor training for oral musculature

Role of AAC in dysarthria

Apraxia

Characteristics; assessment; differential diagnosis; management

Current issues and trends regarding apraxia prognosis

12.9.3 References

- Ball, M. J. and Lowry O. M. 2001. *Methods in Clinical Phonetics*. London and Philadelphia: Whurr Publishers.
- Caruso. F. J. and Strand, E. A. 1999. *Clinical management of motor speech disorders in children*. New York: Thieme.
- Dworkin, P. J. 1991. *Motor speech disorders – A treatment guide*. St. Louis: Mosby Year Book Inc.
- Duffy, J. R. 1995. *Motor speech disorders: substrates, Differential diagnosis and management*. St. Louis: Mosby.
- Marquardt. T. P. 1982. *Acquired Neurogenic Disorders*. New Jersey: Prentice-Hall, Inc.
- Massen et. al (ed.) 2004. *Speech Motor Control in normal and disordered Speech*. New York: Oxford University Press
- Rothi, G. J. I. and Heilman, K. M. (ed.) 1997. *Apraxia of Speech in Adults*. San Diego: Singular Publishing Group.
- Workinger, M. S. 2005. *Cerebral Palsy-Resource Guide for Speech Language Pathologist*. Thomas Delmar Learning.

12.10 Name of the course

PMSLT 6301 Child Language Disorders: Dyslexia and ACA

12.10.1 Learning Outcome

Upon completion of this course the students will be able to—

- a. Acquire fundamentals of child language disorders.
- b. Interpret important theories and therapy materials used in Dyslexia and ACA
- c. Design therapy materials with a view to reducing various child language disorders to the maximum extent.

12.10.2 Course Content

a. *Child language disorders*

40

Child language development

Current theories of language acquisition

Overview of genetic, neuro-anatomical and neuro-physiological correlates of language developments

Language development in exceptional circumstances

Bilingual language acquisition; visual handicap; mental retardation; hearing loss;

William syndromes; Down syndromes; language learning disabilities

Models of language acquisition and their application in child language disorders

Psycholinguistics, Neurolinguistic and cognitive processes in child language disorders

Basic properties of Developmental language disorders

Fundamentals of acquired child language disorders

b. <i>Dyslexia and Dysgraphia</i>	30
Dyslexia and Dysgraphia	
Basic features and characteristics; historical perspective	
Reading and dyslexia	
Neurology of reading and writing	
Models of reading	
Classifications of Dyslexia	
Surface Dyslexia	
Phonological Dyslexia	
Semantic Dyslexia	
Classification of Dysgraphia	
Evaluation, rehabilitation, and therapy and treatment approaches	

c. <i>ACA (Acquired Childhood Aphasia)</i>	30
Child neurology	
Focused language areas; brain areas of other communication approaches; hemispheric dominance; language and plasticity of the brain	
Cerebral Palsy and ACA	
Basic features of cerebral palsy	
Acquired childhood aphasia as a symptom cerebral palsy	
Fundamentals features of ACA	
Specific assessment, therapy and intervention approaches for ACA	

12.10.3 Reference

Arif, H. 2013. TTR and D value to measure lexical diversity of a normally developing child and a child with language disorders. *The Arts Faculty Journals*, Vol. 5, No. 7, 90-106

Arif, H. and Bol, G. W. 2008. Counting MLU in morphemes and MLU in words in a normally developing child and child with a language disorder: A comparative study. *The Dhaka University Journal of Linguistics*, vol.1, no.1, 167-182

Adams, C., Browns, B and Edwards, M. 1999. *Development disorders of language*. London: Whurr Publishers Ltd.

Bishop, D and Mogord, K. (eds.) 1993. *Language Development in Exceptional Circumstances*. U.K.: Erlbaum Associates Ltd., Publishers.

Gillamm, R.B. 1998. *Memory and Language Impairment in children and adults. New Perspectives*. USA: Aspen Publishers, Inc.

Varrow. Wool gfolk E. and Lynch J.I. 1982. *Integrative Approach to Language Disorders in Children*. USA: Grune and Stratton, Inc.

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12.11 Name of the course

PMSLT 6302 Developmental Language Disorders: Autism and Mutism

12.11.1 Learning Outcome

Upon completion of the course the students will be able to—

- a. Depict basic properties of developmental language disorders.
- b. Interpret essential features of autism and mutism.
- c. Employ specific therapy and intervention process to help autistic children to develop language and communication.

12.11.2 Course Content

<i>a. Developmental language disorders</i>	30
Developmental language disorders in children-linguistic, pragmatic, prosodic, behavioral, and literacy characteristics	
Cross cultural consideration in assessment and management of developmental language disorders	
<i>b. Autism</i>	50
Autism as developmental language disorders	
Characteristics, basic features, historical perspectives	
Autism as pervasive developmental disorders	
Classification of autism	
Theory of mind and its relevance with autistic language disorder	
Different linguistic deficits of children with autism	
Intonation pattern; lexical development; echolalia; pragmatic aspects of language development	
Other communication impairment in children with ASD	
Autism and William Syndrome: nature of language deficits	
Specific assessment, therapy and intervention approaches	
<i>c. Mutism</i>	20
Developmental language disorders and mutism	
Mutism and degree of intentionality	
Classifications of mutism	
Functional versus Organic mutism	
Selective mutism; selective mutism in children	
School mutism and classroom mutism	
Total mutism	
Organic mutism	
Mutism and therapy	
Therapy for selective mute children	
Prognosis and therapy of total mutism	
Therapy for patients with organic mutism	
12.11.3 Reference	
Adams, C. Brown, R. and Edwards, M. 1999. <i>Developmental disorders of language</i> London: Whurr Publishers Ltd	
Fabbro, F. 1999. <i>Concise Encyclopedia of Language Pathology</i> . Oxford: Elsevier Science Ltd	

Lawson, W. 2001. *Understanding and Working with the Spectrum of Autism*. London and Philadelphia: Jessica Kingsley Publishers

Matson, J. L. 2009. *Applied Behavioral Analysis for Children with Autism Spectrum Disorders*. Springer

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12.12 Name of the course

PMSLT 6303 Developmental Language Disorders: SLI and others

12.12.1 Learning Outcome

Upon completion of this course the students will be able to—

- a. Get acquainted with basic concepts of specific language impairment.
- b. Interpret fundamental features of developmental language disorders.
- c. Use appropriate materials to develop speech and language of children with SLI and other disorders.

12.12.2 Course Content

a. SLI (Specific Language Impairment) 50

SLI as a developmental language disorder

Nature; characteristics; history of studies of SLI; clinical, genetic and developmental perspectives

Nature of linguistic deficits of children with SLI

Diagnosis of Specific language impairment

Learning disability and SLI

SLI, Autism, ACA, William Syndrome Down Syndrome: relation approach

Specific assessment, therapy and intervention approaches

b. Other developmental language disorders 50

William Syndrome

Vocal and phonological development, lexical development, morphological and syntactic development, pragmatic development

Down syndrome

Vocal and phonological development, lexical development, morphological and syntactic development, pragmatic and communicative development

Specific assessment, therapy and intervention approaches for different developmental language disorders

12.12.3 References

Leonard, L. B. 1998. *Children with specific language impairment*. M.A.: MIT Press

Fabbro, F. 1999. *Concise Encyclopedia of Language Pathology*. Oxford: Elsevier Science Ltd

Tager-Flusberg, H. 2009. Atypical Language Development: Autism and Other Neurodevelopmental Disorders. In Hoff, Erika and Shatz, Marilyn (eds.) *Blackwell Handbook of Language Development*. Oxford: Wiley-Blackwell. 432-453

12.13 Name of the course

PMSLT 6304 Voice Disorders and Dysphagia

12.13.1 Learning Outcome

Upon completion of the course the students will be able to—

- a. Be familiar with fundamentals of voice disorders.
- b. Identify the underlying language deficits exhibited by the patients with dysphasia.
- c. Execute appropriate therapy to reduce dysphasic linguistic deficits.

12.13.2 Course Content

a. Voice Disorders

50

Anatomy and physiology of laryngeal system

Models of vocal fold vibration

Development of vocal fold

Mechanical properties of the vocal fold

Voice evaluation: perceptual and instrumental

Aerodynamic tests-vital capacity, mean airflow rate, maximum duration of sustained blowing

Measurement of vocal fold vibration

Pathophysiological changes in different voice disorders

Different types of voice disorders

 Pediatric voice disorders

 Neurogenic voice disorders

 Endocrinal voice disorders

Laryngectomy

Pathophysiology of larynx

Treatment-medical, surgical and therapeutic

Rehabilitation team of Laryngectomy

Consideration in rehabilitation

Acoustic, perceptual and physiological aspects of alaryngeal speech

Factors influencing intelligibility of alaryngeal speech

b. Dysphagia

50

Dysphagia – Anatomical & Maturational considerations, Role of respiration. Physiology of suck- swallow- breath sequence, overview of phases of swallowing, Development of feeding skills, Alternate methods of nutritional intake

Disorders of swallowing in children and adults

Etiological classification: Medical, GI tract, respiratory, CNS/PNS damage, cardiac effects, structural, abnormalities and iatrogenic.

Assessment – Clinical examination, subjective evaluation of swallow function, feeding skills, GERD. Objective methods - Radiological and Instrumental evaluation

Multidisciplinary management of dysphagia - Issues and concerns, Medical and Non-medical treatment

12.13.3 References

- Baken, R. J. 1996. *Clinical Measurement of Speech and Voice*. California: Singular Publishing Group Inc.
- Boone, D. R., McFarlane, S. C. and Von Berg, S. L. 2005. *Voice and Voice Therapy*. Boston: Allyn and Bacon
- Casper, J. K. and Colton, R. H 1993. *Clinical Manual for Laryngectomy and Head and Neck Cancer Rehabilitation*. California: Singular Publishing Group Inc.
- Johnson, A. F. and Jakobson, B. H. 1998. *Medical Speech-Language Pathology*. New York and Stuttgart: Theime
- Rubin, J. S., Sataloff, R. T., Korovin, G. S. and Gould, W. J. 1995. *Diagnosis and Treatment of Voice Disorders*. NY:IGAKU-SHOIN Medical Publishers, Inc.
- Sataloff, R. T., Eller, R. T. and Hawkshaw, M. 2007. *Atlas of Laryngoscopy*. California: Plural Publishing, Inc.
- Satalof, R. T., Mandel, S, and Abaza, M. 2006. *Laryngeal Electromyography*. California: Plural Publishing, Inc.
- Titze, I. R. 1994. *Principles of Voice Production*. NJ: Prentice Hall, Inc.

12.14 Name of the course

PMSLT 6401 Fluency Disorders and Stuttering

12.14.1 Learning Outcome

Upon completion of the course the students will be able to—

- a. Get understand basic features of fluency disorders.
- b. Identity typical language deficit uttered by patients with stuttering.
- c. Design therapy for fluency disorders and stuttering.

12.14.2 Course Content

<i>a. Fluency Disorders</i>	50
Dimensions of fluent speech	
Factors affecting fluent speech	
Theoretical constructs in fluency development	
Perspectives in fluency disorders (developmental, childhood and adult)	
Neuro-anatomical, neurophysiologic aspects of fluency disorders	
Research designs and therapy module with respect to fluency disorders	
<i>b. Stuttering</i>	50
Stuttering defined	

Linguistics, auditory processing, articulatory dynamics, laryngeal dynamics, prosodic, speech motor control viewpoints in stuttering

The biology of stuttering

Who stutters?

Nature, characteristics, differential diagnosis, and current status of:

Normal non-fluency

Cluttering

Neurogenic stuttering

Drug-Induced stuttering

Severity of stuttering –theoretical foundations and methods

Searching for a cure

Assessment and diagnosis

Efficacy measurements in stuttering therapy

Spontaneous recovery

Prevention, relapse of stuttering and related issues

Review of therapy in stuttering and recent advances in evidence based management of children and adults with stuttering

12.14.3 References

Curlee, R.F. and Siegel, G.M. 1996. *Nature and treatment of stuttering*. Boston: Allyn and Bacon

Fawcus, M. 1995. *Stuttering*. Whurr Publishers, London

Nathan, D. 2003. *Understanding Stuttering*. Jackson: University Press Mississippi

Schwartz, H.D. 1999. *A primer for stuttering therapy*. Boston: Allyn and Bacon

Starkweather, D. 1987. *Fluency and stuttering*. New Jersey: Prentice-Hall

12.15 Name of the course

PMSLT 6402 Nonverbal Communication, poetic and music Therapy for Speech and Language Disorders

12.15.1 Learning Outcome

Upon completion of the course the students will be able to—

- a. Make the difference between verbal and nonverbal therapy used in speech and language disorders.
- b. Be aware of the importance of nonverbal and music therapy very much essential to the context of various communication deficits.
- c. Apply relevant nonverbal and music therapy to improve linguistic disabilities of persons with speech and language disorders.

12.15.2 Course Content

a. Introduction to nonverbal communication

30

Nonverbal communication defined

Difference between verbal and nonverbal communication

Types of nonverbal communication

Gesture, posture and Kinesics

Facial Signals
Gaze
Proxemics
Paralanguage
Functions of Nonverbal communication
Sociolinguistics of nonverbal communication
Clinical issues of nonverbal communication

b. Nonverbal behavior as diagnostic criteria 20
Typical nonverbal forms performed by-
Autistic children, children with SLI, ADHD and deaf, schizophrenics, dysphagics,
dysarthrics and aphasics
Facial expression of emotion (fear, anger, happiness, sadness, disgust, surprised) by-
Autistic children, children with SLI, ADHD and deaf, schizophrenics, dysphagics,
dysarthrics and aphasics

c. Nonverbal, poetic and music therapy 50
Nonverbal communication and music as therapy materials
Nonverbal approach as an alternative way of communication for patients with speech and
language disorders
Designing specific nonverbal therapy for-
Autistic children
Children with SLI, ADHD and deaf
Dysphagics
Dysarthrics
Aphasics
Visual Action Therapy (VAT) for Global Aphasics
Poetic and Music therapy for-
Autistic children
Toddlers' communication rehabilitation process

12.15.3 References

- Andersen, P. 2007. *Nonverbal Communication: Forms and Functions*. Waveland Press.
Burgoon, J. K. 1996. *Nonverbal Communication: The Unspoken Dialogue*. McGraw-Hill
Publishing Company
FOLEY, GRETCHEN N. AND GENTILE, JULIE P. 2010. Nonverbal communication in
Psychotherapy. *Psychiatry* 7(6):38–44
Guerrero, L, K., Joseph A. DeVito and Michael L. H.1999. *The Nonverbal
Communication Reader: Classic and Contemporary Readings*; Waveland Press, Inc.
Helm-Estabrooks, N., Fitzpatrick, P. M. and Barresi, B. 1982. Visual Action Therapy for
Global Aphasia. *Journal of Speech and Hearing Disorders* Vol.47 385-389
Knapp, M. L. and Judith H.1997. *Nonverbal Communication in Human Interaction*.
Harcourt Brace.
Lackie, B.. 1977. Nonverbal communication in clinical social work practice. *Clinical
Social Work Journal*. Volume 5, Number 1.

Muller, C. and Posner, R.1998. *The semantics and pragmatics of everyday gestures*.
 Berlin: WEIDLER Buchverlag
 Poggi, Isabella. 2007. *Mind, Hands, Face and Body*. Berlin: WEIDLER Buchverlag
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12.16 Name of the course

PMSLT 6404 Rehabilitation and Management of people with Speech and Language Disorders

12.16.1 Learning outcome

Upon completion of the course the students will be able to—

- a. Provide appropriate management of people with speech and language disorders.
- b. Apply the techniques to rehabilitate people with a view to improving their pragmatic communication process.

12.16.2 Course Content

Rehabilitation and management of infants, children and persons with hearing impairment, autism, aphasia, voice disorders, fluency and stuttering

Early intervention programs

Importance (effect of auditory deprivation and role of auditory plasticity), rationale, Role of care givers

Process of informed decisions regarding: selection of method of rehabilitation, choice of amplification, language issue, selection of educational options

Alternate modes of intervention: CBR, correspondence programs, distance mode intervention, telepractices

Outcome measures

Audit of facilities in Bangladesh

Formal education: Pre-school, School, College and vocational training programs

Role of speech therapist in formal education

Current issues in Health Care Delivery and the Speech-Language Pathologist

Clinical service delivery reform

Outcome assessment in Speech-Language Pathology

12.16.3 References

Alpiner, J.G. and McCarthy P.A. (eds.) 2000. *Rehabilitative Audiology Children & Adults*. U.S.A, William & Welkins.

Hull, R.H. (ed.) 2001. *Aural Rehabilitation – serving children and adults*. Singular Publishing Group.

Johnson, A. F. and Jakobson, B. H. 1998. *Medical Speech-Language Pathology*. New York and Stuttgart: Theime.

Tye, M. N. 1998. *Foundations of Aural Rehabilitation*. Singular Publishing Group, Inc.

13. Clinical Practicum

13.1 Objectives

- a. Developing skills to critically evaluate diagnosis and intervention of various communication disorders.
- b. Designing therapy materials to be used in different communication disorders.
- c. Applying appropriate therapy and intervention process to improve linguistic deficits occurred in different communication disorders.

13.2 Learning outcome

At the end of 2nd, 3rd and 4th semester the students will be able to—

1. Acquire knowledge of the facilities and activities of the clinical set up.
2. Acquire knowledge of the terminology used in the assessment and therapy in the clinical set up and develop proficiency in usage in discussion.
3. Acquire knowledge about normative aspects of speech and language and develop skills for perceptual and instrumental measurement.

13.3. Description

Students, in every semester, will spend 10 hours per week in hospital/clinic not only to observe clinical conditions but also collect pathological linguistic data of patients with respective communication disorders which are mentioned in the course structure.

13.4 Assignment

13.4.1 PMSLT 5205 Clinical Practicum (Hearing, Aphasiology and motor speech disorders)

1. Assess 12 clients with hearing, aphasiology and motor speech disorders (4 each).
2. Offer therapy for at least 12 clients with hearing, aphasiology and motor speech disorders.

13.4.2 PMSLT 6305 Clinical Practicum (Dyslexia, ACA, Autism, Dysphasia)

1. Assess 12 clients with dyslexia, ACA, autism and dysphasia (3 each).
2. Offer therapy for at least 12 clients with dyslexia, ACA, autism and dysphasia.

13.4.3 PMSLT 6403 Clinical Practicum (Stuttering, nonverbal and music)

1. Assess and offer 12 clients with stuttering disorders (4 every week).
2. Design 20 nonverbal and music therapy for patients with different communication disorders.

14. Thesis

In the beginning of 4th semester students having 55% marks, on the basis of the result of previous 3 semesters, will be assigned to conduct a research work under the course entitled **PMSLT 6405 Thesis**. In this course students will work on a selected topic of dissertation prepared under supervision and guidance of recognized faculty of the department and will submit at the end of this semester.

Students having less than 55% marks will be offered another course entitled **PMSLT Rehabilitation and Management of people with Speech and Language Disorders** instead of thesis.

15. Modification and renewal of the curriculum

Any kind of modification and renewal of this curriculum will be done by the Academic Council initiated by the Academic Committee of the Department.