Curriculum

Of

Professional Masters in Communication Disorders (PMCD)

Session: 2025-26, 2026-27, 2027-28, 2028-2029

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

Publication
January 2026

Copyright
Department of Communication Disorders
University of Dhaka

Prepared by
Prof. Dr. Hakim Arif
Dr. Tawhida Jahan
Dr. Jahangir Alam
Sharmin Ahmed

Price
Taka 200
USD 5

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

Department of Communication Disorder

Professional Masters in Communication Disorders (PMCD)

Academic Session: 2025-26, 2026-27, 2027-28, 2028-2029

1. ***Nomenclature***: Professional Masters in Communication Disorders (PMCD)
2. ***Duration of the program***: 2 Semesters

   Each semester shall be of 19 weeks, of which -
   I. 15 weeks for class teaching
   II. 1 week break for preparation, and
   III. 3 weeks for holding semester final examinations

3. ***Medium of Instruction***: Mixed (English / Bengali)
4. ***Admission Criteria***:
   a. Bachelor's degree in any discipline/Equivalent
   b. Second Class/CGPA 2.50 or equivalent in BA/BSS/B.Sc/B.Ed/B.Pharm/MBBS (degree completed)
   c. Candidates with the above qualification working in Special Schools/Clinics/Hospitals and/or Parents of special children will be preferred in this program.
   d. Candidate completing a bachelor's degree in Speech and Language therapy/Pathology will be preferred in this program.
5. ***Number of students***: 40 (forty)
6. ***Courses of study***:
   a. *Courses*: 9 courses (8 theoretical and 1 clinical practicum course) with one dissertation or thesis course, or 10 courses (9 theoretical and 1 clinical practicum course) without a thesis.
   b. *Thesis*: A thesis work equivalent to 2 courses will be done by the students in the 2nd semester.
   c. *Clinical Practicum*: In the 2nd semester, each student will attend a clinical practicum. This practicum will provide students with real-life experience, but not as a professional Speech and Language Pathologist.
7. ***Criteria of passing***: As per university rules under the semester system.

8. Administering examinations and other academic activities:

a. *Counting credit hours*

In the semester system, credit hours are counted based on 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 based on -
   - 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

* After completing the entire semester, students need to be interviewed to be informed of the nature of their learning and skills. Hence, arranging an oral examination after every semester is a suitable one in this regard.

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

Numerical grade (in percent)	Letter grade	Explanation	Grade point (In a 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 because they are not able to sit for the semester's final examination. With the submission of 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 of 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 the exam sheet

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

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

10. Course Structure

1st Semester

Course No	Title of the Course	Marks
PMCD 5101	Introduction to Linguistics and Clinical Linguistics	100
PMCD 5102	Introduction to Human Communication, Culture, and Disability	100
PMCD 5103	Neurology of Speech and Language	100
PMCD 5104	Audiology and Hearing Science	100
PMCD 5105	Developmental Language Disorders	100

2nd Semester

Course No	Title of the Course	Marks
PMCD 5201	Acquired and Neurogenic Communication Disorders	100
PMCD 5202	Motor Speech and Fluency Disorders	100
PMCD 5203	Voice Disorders and Dysphagia	100
PMCD 5204	Research in Communication Disorders	100
PMCD 5205	Rehabilitation and Management of People with Speech and Language Disorders a. Theory b. Therapy and Internship	200
PMSLP 5206 (alternative to the course PMSLP 5205)	Thesis	200

11. Detail of the courses

11.1 Name of the course

PMCD 5101 Introduction to Linguistics and Clinical Linguistics
(ভাষাবিজ্ঞান ও চিকিৎসা ভাষাবিজ্ঞানের ভূমিকা)

11.1.1 Credit Hours: 4

11.1.2 Learning outcome of the course

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

a. Know the underlying structure of human language.
b. Acquire the skill to interpret the basic features and pathological features of a language.
c. Know the basic characteristics of Clinical Linguistics.

11.1.3 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

B. *Clinical Linguistics* 25

Scope of Clinical Linguistics
Clinical Linguistics and the relationship between Psycholinguistics and Neurolinguistics

11.1.4 References

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

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

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

Fineh, G. 1998. *How to Study Linguistics*. London: McMillan

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

Horsey, R. 2001. *101 Key Ideas in 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

মোরশেদ, আবুল কালাম মনজুর। ২০০২। *আধুনিক ভাষাতত্ত্ব*। ঢাকা: মাওলা ব্রাদার্স

আলী, জীনাত ইমতিয়াজ। ২০০১। *ধ্বনিবিজ্ঞানের ভূমিকা*। ঢাকা: মাওলা ব্রাদার্স
হাই, মুহাম্মদ আবদুল। ১৯৬৪। *ধ্বনিবিজ্ঞান ও বাংলা ধ্বনিতত্ত্ব*। ঢাকা: বাংলা একাডেমী
ইসলাম, রফিকুল । ১৯৯২। *ভাষাতত্ত্ব*। ঢাকা: বুক ভিউ
শ', রামেশ্বর। ১৯৯৮। *সাধারণ ভাষাবিজ্ঞান ও বাংলা ভাষা।* কলকাতা: পুস্তক বিপণি
সেন, সুকুমার। ১৯৯৮। *ভাষার ইতিবৃত্ত।* কলিকাতা: আনন্দ পাবলিশার্স লিমিটেড
সিকদার, সৌরভ। ২০০২। *ভাষাবিজ্ঞানের ভূমিকা ও বাংলা ভাষা*। ঢাকা: অনন্যা
আরিফ, হাকিম ও ইমতিয়াজ, মাশরুর। ২০১৪। চিকিৎসা ভাষাবিজ্ঞান ও বাংলা ভাষা। ঢাকা: নবযুগ প্রকাশনী

11.2 Name of the course

PMCD 5102 Introduction to Human Communication, Culture, and Disability
(মানব সংজ্ঞাপন, সংস্কৃতি ও প্রতিবন্ধিতা)

11.2.1 Credit Hours: 4

11.2.2 Learning Outcome

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

a. Describe fundamental features of human communication.
b. Demonstrate an understanding of the concept of disability from the point of view of social, cultural, and religious perspectives.
c. Demonstrate the ability to compare and discuss disability narrative, protection rights, and their media aspects.
d. Demonstrate an ability to explain theories of disability.

11.2.3 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 characteristics of verbal and nonverbal communication
Generation and Comprehension of Communication acts
Communicative competence
Cultural views on communication
Sign language and communication

B. Culture and Disability

Disability, Culture, and Identity: An Introduction
Disability and Disadvantages
Accommodations of people with disability
Disability in Theory: Theoretical Framework of Disability
Disability, narrative, and representation
Disability and Legal Rights
Disability culture and self-advocacy
Disability, Ethnicity and Multiculturalism
Exploring the complexity of communication of persons with disability

Inclusion and Disability

11.2.4 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

Barnes, C (2012). *The Social Model of Disability: Valuable or Irrelevant?*. The Routledge

Connor, D., Gabel, S. L., Morton, M. (2013). *Disability studies and inclusive education — implications for theory, research, and practice, International Journal of Inclusive Education*. Routledge

Davis, L. J., ed (2006). *The Disability Studies Reader*. Second edition. Routledge

Davis, L. J., ed (2013). *The Disability Studies Reader, fourth edition*. Routledge

Ellis, K. (2015). *Disability and Popular Culture*. Surrey: Ashgate Publishing Limited

Goodley, D. (2001). *Towards socially just pedagogies: Deleuzoguattarian critical disability studies*. University of Sheffield

Halder, S. & Assaf, L. C. (eds.). (2017). *Inclusion, Disability and Culture An Ethnographic Perspective Traversing Abilities and Challenges*. Springer International Publishing AG

Kuppers, P. (2011). *Disability Culture and Community Performance Find a Strange and Twisted Shape*. PALGRAVE MACMILLAN

Leech, G. 1983. *Principles of Pragmatics.* London: Longman

Levinson, S. 1983. *Pragmatics.* London: CUP

Poore, C. (2009). *Disability in Twentieth-Century German Culture*. The University of Michigan Press

Riddell, S. & Watson, N. (2003). *Disability, Culture and Identity*. London & New York: Routledge

Samovar et al. 2009. *Communication between cultures*. Boston: Wadsworth

Scearle, J.R. 1997. *Expression and Meaning*. Cambridge: Cambridge University Press

Searle, J. R. 1977. *Speech Acts.* Cambridge: Cambridge University Press

Waldschmidt, A., Berressem, H. & Ingwersen, M. (eds.) (2017). *Culture – Theory – Disability*. Bielefeld: transcript Verlag

আরিফ, হাকিম ও জাহান, তাওহিদা। ২০১৪। *যোগাযোগবিজ্ঞান ও ভাষাগত অসঙ্গতি*। ঢাকা: বুকস ফেয়ার

11.3 Name of the Course

PMCD 5103 Neurology of Speech and Language

(বাচন ও ভাষা স্নায়ুতত্ত্ব)

11.3.1 Credit Hours: 4

11.3.2 Learning Outcome

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

a. Describe the fundamentals of human neurology from the perspective of speech and language therapy.
b. Identify the basic structure of the central nervous system (CNS) of the human being.

c. Locate the specific speech and language areas in the brain.

11.3.3 Course Content

Basic Concepts of Neurology

The relation between speech and language

Anatomy of the central nervous system

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

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, and Neuroanatomical organization in bilinguals.

11.3.4 References

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

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

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

Millman. II 1972. *Integrated Electronics*. Tokyo: McGraw-Hill

Oppenheim and Schafer .1989. *Digital signal processing*. New Delhi: Prentice Hall of India

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

Rabinette, M. S. and Slanke. L. L. (eds.) 1997. *Otoacoustic emissions Clinical applications*. New York: Thieme.

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

11.4 Name of the Course

PMCD 5104 Audiology and Hearing Science

(শ্রুতিতত্ত্ব ও শ্রবণ বিজ্ঞান)

11.4.1 Credit Hours: 4

11.4.2 Learning Outcome

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

a. Identify the physiological features of the auditory system
b. Get basic knowledge of using hearing aids and their evolution process.
c. Apply appropriate technology to improve the auditory ability of persons with auditory disorders

11.4.3 Course Content

a. Introduction *40*

Anatomy and physiology of the human auditory system

External ear; Middle ear; Cochlea

Auditory nerve

Tonotopic organization; structure on internal auditory meatus; refectory 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 area; stimulus coding; role of auditory cortex in localization

b. Hearing Aids *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

c. Diagnostic Audiology *30*

11.4.4 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-Verlag

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

11.5 Name of the Course

PMCD 5105 Developmental Language Disorders

(বর্ধনমূলক ভাষা বৈকল্য)

11.5.1 Credit Hours: 4

11.5.2 Learning Outcome

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

a) Analyze and articulate the nature, types, and functions of developmental language disorders;
b) Apply different theories and methods to identify such disorders;
c) Demonstrate a clear understanding of the roles and functions of techniques and procedures used in this discipline.

11.5.3 Course Content

Developmental language disorders (DLD): definition, concept, scope

Etiology of Developmental Language Disorders

DLD and child language disorders: similarities and dissimilarities

SLI: features, cause, characteristics, assessment, and intervention

Environmental Factors in Developmental Language Disorders

Articulation and Phonological Disorders

Morphological Disorders

Grammatical Disorders

Syntactic Disorders

Semantic and Pragmatic Disorders

Multiple disabilities

Learning Disabilities

Assessment and Management of DLD

Methods, procedures, and cross-cultural considerations

11.5.4 References

Adams, C., Brown, R. & Edwards, M. (1999). *Developmental disorders of language. London*: Whurr Publishers Ltd.

Fletcher, H. & Miller, J.F. (2005). *Developmental Theory and Language Disorders*. Amsterdam/Philadelphia: John Benjamins Publishing Company

Hoff, E. & Shatz, M. (2007). *Blackwell Handbook of Language Development*. Blackwell Publishing Ltd.

Johnson, B.A. (1996). *Language Disorders in Children An Introductory Clinical Perspective*. Albany, New York: Delmar Published

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

Norbury, C. F., Tomblin, J. B. & Bishop, D. V. M. (2008). *Understanding developmental language disorders in children*. New York: Psychology Press

Rice, M. & Warren, S.F. (eds.). (2004). *Developmental Language Disorders: From Phenotypes to Etiologies*. Mahwah, New Jersey: Lawrence Erlbaum Associates, Inc.

Verhoeven, L. & van Balkom, H. (2004). *Classification of developmental language disorders: theoretical issues and clinical implications*. Mahwah, New Jersey: Lawrence Erlbaum Associates, Inc.

11.6 Name of the course

PMCD 5201 Acquired and Neurogenic Communication Disorders

(অর্জিত ও স্নায়ুমূলক যোগাযোগ বৈকল্য)

11.6.1 Credit Hours: 4

11.6.2 Learning Outcome

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

a. Demonstrate an understanding of how to compare and contrast the behavioral explanations of individuals suffering from neuro-developmental disorders.
b. Demonstrate an ability to describe the diagnostic criteria of children with these disorders.
c. Demonstrate an ability to apply assessment tools to treat these disorders.
d. Get acquainted with different acquired speech and language disorders

11.6.3 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

Advances in aphasia rehabilitation and treatment efficacy

Overview of Neuro-developmental Disorders: definition, types, prevalence, following DSM-5

Autism Spectrum Disorders (ASD)

Attention-Deficit/Hyperactivity Disorder (ADHD)

Down Syndrome

Cerebral Palsy

11.6.4 References

Accardo, P. J., & Accardo, P. J. (2000). *Attention Deficits and Hyperactivity in Children and Adults: Diagnosis, Treatment, Management*. Marcel Dekker.

American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders. *BMC Med, 17,* 133-137.

American Psychiatric Association. (2015). *Neuro-developmental Disorders: DSM-5® Selections*. American Psychiatric Pub.

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

Baker, D. L., Miller, E., Dang, M. T., Yaangh, C. S., & Hansen, R. L. (2010). Developing culturally responsive approaches with Southeast Asian American families experiencing developmental disabilities. *Pediatrics, 126*(Supplement 3), S146-S150.

Bledsoe, R., Smith Myles, B., & Simpson, R.L. (2003). Use of a social story intervention to improve mealtime skills of an adolescent with Asperger Syndrome. *Autism,* 7, 289-295.

Burgoyne, K., Duff, F. J., Clarke, P. J., Buckley, S., Snowling, M. J., &Hulme, C. (2012). Efficacy of a reading and language intervention for children with Down syndrome: a randomized controlled trial. *Journal of Child Psychology and Psychiatry*, 53(10), 1044-1053.

Chapman, R.S. & Hesketh, L.J. (2001). Language, cognition, and short-term memory in individuals with Down syndrome. *Down Syndrome Research and Practice, 7, 1-7.*

Chawarska, K. & Volkmar, F.R. (eds.). (2008). *Autism Spectrum Disorders in Infants and Toddlers Diagnosis, Assessment and Treatment*. New York and London: The Guildford Press

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.

Howlin, P., Gordon, K.R., Pasco, G., Wade, A., & Chairman, T. (2007). The effectiveness of Picture Exchange Communication System (PECS) training for teachers of children with autism: a pragmatic randomised controlled trial. *Journal of Child Psychology & Psychiatry*, 48, 473-481.

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

Norbury, C. F., & Sparks, A. (2013). Difference or disorder? Cultural issues in understanding neuro-developmental disorders. *Developmental psychology*, *49*(1), 45.

Papavasiliou, A. S. (2009). Management of motor problems in cerebral palsy: a critical update for the clinician. *european journal of pediatric neurology*, *13*(5), 387-396.

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

Patel, D.R., Greydanus, D.E., Omar, H.A. & Merrick, J. (2011). *Neuro-developmental Disabilities-Clinical care for children and young adults*. New York: Springer

Rosenbaum, P. (2003). Cerebral palsy: what parents and doctors want to know.*Bmj*, *326*(7396), 970-974.*Academy of Child & Adolescent Psychiatry*, *35*(5), 579-587.

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

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

Wilson, J. M., & Marcotte, A. C. (1996). Psychosocial adjustment and educational outcome in adolescents with a childhood diagnosis of attention deficit disorder. *Journal of the American*

আরিফ, হাকিম [সম্পা.] ।২০১৫। *বাংলাভাষী অটিস্টিক শিশুর ভাষা সমস্যা*। ঢাকা: অন্বেষা প্রকাশন

আরিফ, হাকিম ও নাসরীন, সালমা। ২০১৩। *আমাদের অটিস্টিক শিশু ও তাদের ভাষা*। ঢাকা: নবযুগ প্রকাশনী

আরিফ, হাকিম [সম্পাদিত] । ২০১৫। *অ্যাফেজিয়া ও বাংলাভাষা: ভাষাতাত্ত্বিক সমীক্ষা*। ঢাকা: বুকস ফেয়ার

11.7. Name of the course

PMCD 5202 Motor Speech and Fluency Disorders

(পেশি-সঞ্চালন বাচন ও সাবলীলতা বৈকল্য)

11.7.1 Credit Hours: 4

11.7.2 Learning Outcome

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

a. Explain various theories and methods of motor speech disorders and fluency disorders.
b. Get to understand the basic features of fluency disorders.
c. Identify typical language deficits uttered by patients with stuttering.
d. Design therapy for fluency disorders and stuttering.

11.7.3 Course Content

A. Motor Speech Disorders *40*

Neurophysiology of motor speech disorders

Neurophysiology and functional development of sensory-motor control

Neural substrates and findings in Dysarthria and Apraxia

Development of motor speech disorders

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 to vegetative therapy/sensory motor training for oral musculature

Apraxia

Characteristics; assessment; differential diagnosis; management

B. Fluency Disorders *50*

Dimensions of fluent speech

Factors affecting fluent speech

Perspectives in fluency disorders (developmental, childhood, and adult)

Neuro-anatomical neurophysiological aspects of fluency disorders

C. Stuttering *50*

Stuttering defined

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

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

Normal non-fluency

Cluttering
Severity of stuttering –theoretical foundations and methods
Searching for a cure
Assessment and diagnosis
Spontaneous recovery
Prevention of relapse of stuttering and related issues

11.7.4 References

Caruso, F. J. and Strand, E. A. 1999. *Clinical management of motor speech disorders in children.* New York: Thieme.

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

Duffy, J. R. 1995. *Motor speech disorders: substrates, Differential diagnosis and management.* St. Louis: Mosby.

Dworkin, P. J. 1991. *Motor speech disorders – A treatment guide*. St. Louis: Mosby Year Book Inc.

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

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

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

Rothi, G. J. l. and Heilman, K. M. (ed.) 1997. *Apraxia of Speech in Adults*. San Diego: Singular Publishing Group.

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

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

Workinger, M. S. 2005. *Cerebral Palsy-Resource Guide for Speech Language Pathologist*. Thomas Delmar Learning.

11.8 Name of the course

PMCD 5203 Voice Disorders and Dysphagia

(স্বর বৈকল্য ও গলাধঃকরণ সমস্যা)

11.8.1 Credit Hours: 4

11.8.2 Learning Outcome

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

a. Be familiar with the 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.

11.8.3 Course Content

a. Voice Disorders *50*

Anatomy and physiology of the laryngeal system
Models of vocal fold vibration
Development of the vocal fold

Mechanical properties of the vocal fold
Voice evaluation: perceptual and instrumental
Aerodynamic tests test capacity, mean airflow rate, and 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
    Endocrine voice disorders
Laryngectomy
Pathophysiology of the 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, and 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

11.8.4 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.

11.9 Name of the course

PMCD 5204 Research in Communication Disorders

(যোগাযোগ বৈকল্যে গবেষণা)

11.9.1 Credit Hours: 4

11.9.2 Learning Outcome

This course will enable the students to

a. Demonstrate an understanding of the basics of research work in communication disorders.
b. Demonstrate an ability to analyze and discuss techniques and procedures of conducting research projects in speech and language pathology.
c. Demonstrate an ability to apply the skills and knowledge to conduct pragmatic research work on various aspects of communication disorders.

11.9.3 Course Content

Key Concepts and Research Issues
    What is the research/Scientific Method?
Practical Applications of Research
Ethics in Research
EBP in Communication Disorders
Writing Objectives and Research Questions
Research Strategies in Communication Disorders
Research Design in Communication Disorders
    Qualitative
    Quantitative
    Mixed
    Single Subject
Experimental Design for Studying Treatment Efficacy
Research Projects Related to Communication Disorders

11.9.4 References

Brookshire, R. H. &Brundage, S. B. (2016). *Writing Scientific Research in Communication Sciences and Disorders*. San Diego: Plural Publishing, Inc.

Centeno, J. G., Anderson, R. T., & Obler, L. K. (2007). *Communication Disorders in Spanish Speakers Theoretical, Research and Clinical Aspects*. Clevedon • Buffalo • Toronto: MULTILINGUAL MATTERS LTD.

Ferguson, A. & Armstrong. E. (2009). *Researching Communication Disorders*. PALGRAVE MACMILLAN.

Klippi, A. &Launonen, K. (1998). *Research in Logopedics: Speech and Language Therapy in Finland*. Clevedon • Buffalo • Toronto: MULTILINGUAL MATTERS LTD.

Orlikoff, R. F., Schiavetti, N. & Metz, D. E. (2015). *Evaluating Research in Communication Disorders.*Boston: Pearson

11.10 Name of the course

PMCD 5205 Rehabilitation and Management of People with Speech and Language Disorders (বাচন ও ভাষা সমস্যাগ্রস্ত ব্যক্তির পুনর্বাসন ও ব্যবস্থাপনা)

11.10.1 Credit Hours: 8

11.10.a Theory

11.10.a1 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 to improve their pragmatic communication process.

11.10.a2 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 caregivers

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 the 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

11.10.a3 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.

11.10.b Internship

11.10.b1 Learning Outcome

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

a. Developing skills to critically evaluate the diagnosis and intervention of various communication disorders.
b. Get an understanding of the therapy materials to be used in different communication disorders.

c. Observing appropriate therapy and intervention processes to improve linguistic deficits that occur in different communication disorders.

11.10.b2 Learning outcome

At the end of the 2nd semester, the students will be able to—

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

11.10.b3 Assignment

1. Observe 6 clients with communication disorders
2. Observe therapy for at least 6 clients with communication disorders.
3. Write a report of this observation and submit it to the department for assessment to get a score.

11.11 Name of the course

PMCD 5206 Thesis

(থিসিস)

At the beginning of the 2nd semester, students having 55% marks, based on the results of the previous 3 semesters, will be assigned to conduct research work under the course entitled **PMCD 6405 Thesis**. In this course, students will work on a selected topic of a dissertation prepared under the supervision and guidance of recognized faculty of the department, and will submit it at the end of this semester.

Students having less than 55% marks will be offered another course entitled **PMCD 5205 Rehabilitation and Management of People with Speech and Language Disorders** instead of a thesis.

12. 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.