

## **Speech-Language Pathology Curriculum Post – Foundation Course Topic Summaries**

### **Hearing Courses**

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#### **Hearing Measurement – CMSD 5120**

This course will survey the basic diagnostic techniques and principles in Audiology, as a foundation for practice in Speech-Language Pathology, and as a basis for more advanced study leading to practice in Audiology. The primary purpose of this course is to train future clinicians to understand the meaning and diagnostic significance of audiologic test results, so assignments and assessments will involve case studies. At the completion of the course, students will be able to perform basic audiometric measures and will have a basic understanding of more advanced procedures. Students will be able to read and interpret audiometric test results and understand their diagnostic significance.

- a. Pure-tone air and bone-conduction measures
- b. Audiometric masking
- c. Speech testing
- d. Pseudohypoacusis
- e. Hearing loss prevention
- f. The immittance battery
- g. Electrophysiologic measures
- h. Otoacoustic emissions
- i. Hearing screening and pediatric assessment
- j. Hearing aids and implants

#### **Hearing Disorders – CMSD 5260**

This is a clinically oriented course designed to teach students to recognize various diseases and disorders that affect the ear and/or cause hearing loss. Some speech disorders that are closely related to hearing disorders will also be covered. Various aspects of hearing disorders, including epidemiology, pathogenesis, symptomatology, and available interventions (audiologic, medical and surgical), will be covered. As well, genetic basis of hearing loss and injuries of the ear will also be discussed. At the end of the course, the student should be able to recognize the common and the uncommon disorders that require referral to the appropriate health care professional. As well, the student should be able to manage and treat certain conditions after recognition. Both pediatric and adult onset conditions will be covered.

- a. Basic medical terminology
- b. Anomalies and disorder of the external ear
- c. Eustachian tube and otitis media
- d. Infection control in clinical settings
- e. Middle ear pathologies; diseases of temporal bone; cholesteatoma of the ear
- f. Basic genetics and genetic hearing loss
- g. Syndromic hearing loss
- h. TORCH related hearing loss

- i. Cleft palate & hearing impairment
- j. Sudden sensorineural hearing loss
- k. Noise-induced hearing loss
- l. Trauma and ototoxicity
- m. Presbycusis
- n. Adult neurological disorder & hearing impairment
- o. Brainstem lesions & hearing loss

### **Aural (Re)habilitation With Children – CMSD 5140**

This course provides an overview of the field of aural (re)habilitation with children presenting with various degrees of permanent hearing loss. By the end of this course, students will be familiar with roles within a multidisciplinary but family-centred management approach, the impact of hearing loss on a child's auditory-verbal development, selected amplification devices: hearing aids, cochlear implants, BAHA, etc., techniques for counseling parents of deaf and hard of hearing students, the impact of acoustics on hard of hearing students' academic experience, selected etiologies of hearing loss, stages and milestones of auditory-verbal development, assessment and intervention specific to children with hearing losses, introductory awareness of Deaf culture and a variety of internet resources.

- a. Speech acoustics
- b. Technology and aural habilitation
- c. Auditory skill development
- d. Auditory management in schools
- e. Parent intervention
- f. Assessment & intervention – preschoolers with hearing loss
- g. Speech intervention – older children with hearing loss
- h. Speech reading, speech, voice & resonance
- i. Counseling and professional roles
- j. Signing/deaf culture

### **Speech/Voice/Resonance**

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#### **Fluency Disorders – CMSD 6370**

This course deals primarily with the nature and treatment of developmental stuttering. Topics include facts about its features and patterns of occurrence, theoretical perspectives concerning its nature and etiology, and treatment approaches for children and adults. The course also includes a brief overview of cluttering, psychogenic stuttering, and stuttering associated with acquired neurogenic disorders.

- a. SLP competency in stuttering
- b. Features & onset of persistent developmental stuttering (PDS)
- c. Assessment of PDS
- d. Distinguishing PDS from other fluency disorders: neurogenic and psychogenic stuttering, cluttering
- e. Explanations of stuttering
  - Separating mediating factors from etiology
  - Genetic factor
  - Stuttering as learned behavior
  - Search for a physiological deficit
- f. Treatment of developmental stuttering

- Evidence-based practice/practice-based evidence
- Counseling/client-clinician relationship
- Treatment for adolescents and adults (behavioural approaches, assistive devices, support groups)
- Treatment for preschool and school-age children

### **Speech Disorders – Children – CMSD 5250**

This course provides an overview of the nature, assessment and remediation of phonological and articulation disorders in children. The features and etiology of speech sound disorders in children are discussed. Students will experience a broad introduction to the stages of the clinical process including assessment and treatment, with practice in application of this knowledge in clinical case studies.

- a. Nature of articulation and phonological disorders
  - Theories and phases of normal speech acquisition
  - Identification of disordered development
  - Etiological and contributing factors
  - Phonetic and phonological approaches to assessment and intervention
- b. Assessment
  - Principles and components of the speech evaluation
  - Methods of Phonological analysis
  - Articulation and phonological assessment tools
  - Interpretation of assessment results
- c. Treatment
  - General principles of speech intervention
  - Review of varied treatment approaches and their selection criteria
  - Application of principles of treatment target selection
  - Formulation of treatment plans, goals, and procedures
  - Familiarization with sound stimulability techniques and tips of the trade
  - Introduction to intervention for childhood apraxia of speech
  - Principles of progress monitoring

### **Speech Disorders Adults – CMSD 6450**

This course is designed to help students achieve the skills and knowledge necessary to assume the roles of a competent SLP working with clients who have neuromotor speech disorders. Students will learn to identify and describe the neurologic substrates of neuromotor speech production, to identify, analyze and differentially diagnose neuromotor speech disorders, and to develop intervention plans for adults and children with neuromotor speech disorders.

- a. Neural substrates and nature of motor speech disorders
  - Mechanisms for central and peripheral control of muscles of speech production
  - Classifications of neuromotor speech disorders & their pathophysiologic bases
- b. Differential diagnosis and assessment for treatment planning
  - Determining presence and severity of motor speech disorder
  - Structural-functional examination
  - Formal and informal procedures
  - Perceptual acoustic and physiologic measures
- c. Interventions
  - Principles of motor learning
  - Principles of treatment of motor speech disorders
  - Participation and quality of life issues

- Treatment for apraxia of speech (integral stimulation, Rosenbek's 8-step continuum)
  - Treatment for dysarthria (subsystems, LSVT, communication effectiveness, AAC)
  - Evidence-based practice evaluation (medical treatments, behavioral treatments, neuromuscular facilitation)
- d. Assessment and treatment for children with developmental motor speech disorders

### **Voice/Resonance Disorders – CMSD 6390**

This course is designed to provide an overview of the etiology, assessment, diagnosis, and treatment of voice and resonance disorders in children and adults. This course aims to introduce students to central principles that will guide their professional efforts to assess, diagnose, and treat voice and resonance disorders. It strives to provide a broad introduction to the areas of voice and resonance as well as a foundation of concepts and skills for the student who wishes to make voice and/or resonance their professional focus. Students will be provided with information that will guide their assessment and treatment of clients with a history of cleft lip/palate, as well as those who have undergone a laryngectomy. Finally, the course endeavours to enable all students to make informed and appropriate client referrals in cases where interdisciplinary involvement may be required.

#### **Voice Module:**

- a. Anatomy and physiology of the voice mechanism; laryngeal palpation and landmarking
- b. Classification & etiologies of voice disorders; perceptual characteristics
- c. Vocal abuse & misuse; prevention
- d. Assessment principles & approaches; differential diagnosis
- e. Voice team
- f. Intervention

#### **Head and Neck Module:**

- a. Chemoradiation treatment
- b. Esophageal speech
- c. Tracheo-esophageal speech
- d. Artificial device use
- e. Preoperative and post-operative counseling for individuals undergoing a laryngectomy

#### **Resonance Module:**

- a. Perceptual characteristics of resonance
- b. Anatomy and physiology of the velopharyngeal mechanism
- c. Cleft palate, velopharyngeal dysfunction (VP) and other resonance disorders
- d. Perceptual and instrumental evaluation
- e. Management of resonance and cleft-related speech characteristics

### **Aural (Re)habilitation With Children – CMSD 5140**

*See Hearing courses for content.*

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## **Developmental Language**

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### **Language Disorders in Preschool Children – CMSD 5270**

This course focuses on principles of language assessment and intervention with children. While the principles apply for all ages, the focus is on methods appropriate for children under five

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years of age. General principles of language assessment and intervention are discussed and various intervention procedures and models of service delivery for infants, toddlers and preschoolers are examined and critically evaluated.

- a. Nature and models of language impairments
- b. General principles of assessment
- c. Language sample analysis
- d. General principles of intervention
- e. Prelinguistic: assessment and intervention
- f. Emerging language: assessment and intervention
- g. Developing language: assessment and intervention
- h. Emergent literacy: assessment and intervention
- i. Working in childcare settings

### **Language Disorders in School Age Children – CMSD 6470**

This course covers language impairments of school-aged children and assessment and intervention for these impairments. The framework presented in the preschool language disorders course (CMSD 5270) is used and extended to include written and academic language. In the second half of the class, a categorical model of language disorders is used to provide in-depth knowledge of three categories of language disorder: specific language impairment (SLI), autism spectrum disorders (ASD), and intellectual disabilities (ID; with specific attention to Down syndrome and Williams syndrome). The characteristics of each disorder, specialized assessment and intervention procedures and intervention efficacy are discussed.

- a. School language and language impairments
- b. Nature of impairments and assessment
- c. Principles
- d. Semantics and syntax
- e. Phonological awareness
- f. Narrative assessments
- g. Pragmatics and discourse
- h. Intervention
- i. Principles
- j. Semantics and syntax
- k. Phonological awareness
- l. Text level: narrative & expository
- m. Conversation and peer intervention
- n. A categorical approach to language impairments
  - Late talkers and SLI
  - Autism spectrum disorders
- o. Intellectual disabilities: Down syndrome; Williams syndrome
- p. Inclusive education

### **Advanced Language Disorders in Children – CMSD 6490**

This is the final course in the child language sequence. It builds on the information presented in Speech-Language Acquisition (CMSD 5150), Language Disorders in Preschool Children (CMSD 5270), Language Disorders In School-Aged Children (CMSD 6470) and Speech Disorders Children (CMSD 5250). Students will be applying the general principles learned in these earlier courses to multicultural issues and a diagnostic category or topic related to language disorders of particular interest to them. By the end of the course students will have had experience in researching information about children who experience language (and

possibly speech and/or hearing) disorders. Students will be able to think more deeply about issues of diversity and know where to go for additional information. Students will also be able to describe the nature of a variety of disorders and be able to carefully consider issues related to their assessment and intervention.

- a. Culture
- b. Cultural sensitivity
- c. Cultural competence
- d. Cultural safety
- e. Assessment and intervention with linguistically and culturally diverse populations: principles and practice
- f. Poverty
- g. Social determinants of health
- h. Bilingualism
- i. Francophone development, assessment, intervention
- j. Autism
- k. Additional topics vary from year to year e.g., cerebral palsy, fetal alcohol spectrum disorders, etc.

#### **Aural (Re)habilitation With Children – CMSD 5140**

*See Hearing courses for content.*

#### **Augmentative and Alternative Communication – CMSD 6611**

This course is provided as an introduction to AAC related issues. Active participation in the course will help students discover the knowledge necessary to collaborate in AAC assessment and intervention. An examination of the most recent research in the field will prepare students to choose an appropriate assessment and treatment approach for a variety of clients who would benefit from an AAC system.

- a. Message management: strategies for organizing vocabulary and choosing symbol type
- b. Rate enhancement techniques
- c. Communicating autonomously with AAC
- d. Access to AAC systems – overcoming motor, perceptual, and cognitive barriers
- e. Assessment models
- f. Intervention resources for AAC clients
- g. Planning and implementing assessments based on application of the SETT model
- h. Signal generating devices
- i. Beginning communicators and AAC
- j. Using scripts to communicate
- k. Uses of a talking photo album and story creation apps
- l. Choosing vocabulary for language development and literacy
- m. Acquired disabilities and AAC
- n. MCST-A – an assessment tool for persons with aphasia and AAC need
- o. Apps for literate AAC users
- p. Ethical issues and case studies using mobile technology
- q. Using iPods and iPads as an AAC Tool

## Acquired Language

### Assessment of Neurogenic Language and Cognitive Disorders – Adult – CMSD 6350

This class will focus on language and cognitive disorders associated with aphasia, dementia, traumatic brain injury (TBI), and right hemisphere damage (RHD). The neurological foundations, clinical symptomatology, and assessment of these conditions will be covered.

- a. Neuroanatomical and neurophysiologic aspects of aphasia
- b. Classical aphasia syndromes
- c. Cognitive neuropsychological models of aphasia
- d. Spontaneous recovery and prognosis in aphasia
- e. Interviewing, case history, chart review, principles of psychometric testing
- f. Assessment methods for aphasia
- g. Introduction to dementia
- h. Assessment methods for dementia
- i. Introduction to traumatic brain injury
- j. Assessment of traumatic brain injury
- k. Introduction to right hemisphere disorders
- l. Assessment of right hemisphere disorders

### Treatment of Neurogenic Language and Cognitive Disorders – Adults – CMSD 6460

This course is designed to help students to achieve the skills and knowledge necessary to assume the roles of a competent SLP working with adults who have acquired aphasia and cognitive-linguistic disorders. Students will learn assessment for treatment planning and various aphasia/cognitive-linguistic rehabilitation models and treatment procedures. Students will learn to develop individualized intervention plans for adults with aphasia/cognitive-linguistic disorders.

- a. Definitions, application of WHO model to aphasia and cognitive-linguistic disorders
- b. Functional assessment for treatment planning and treatment outcomes
- c. History and philosophy of interventions
- d. Learning principles, effective instruction
- e. Spaced retrieval training and errorless learning: theory and procedures
- f. External aids and graphic cuing systems for cognitive deficits
- g. Cognitive-linguistic treatments for activities and participation for older adults
- h. Management and community re-entry for young(er) adults
- i. Considerations for cultural and linguistic diversity
- j. Interventions for severe aphasia
- k. Supportive communication
- l. Counseling and career issues
- m. Interventions for persons with mild to moderate aphasia
- n. Group therapy

### Seminars in Adult Communication Disorders – CMSD 6550

This is the final course in the adult neurogenic sequence. It builds on the core knowledge acquired in Introduction to Neurosciences for Communication Disorders (CMSD 5290), Assessment of Neurogenic Language and Cognitive Disorders – Adult (CMSD 6350), and Treatment of Neurogenic Language and Cognitive Disorders – Adults (CMSD 6460). Topics for the student-led seminars will be selected collaboratively by the students and professor and will vary from year to year. Students will learn to research a specialized topic related to adult neurogenic communication disorders and develop and present a cohesive, coherent seminar on

that topic, facilitate discussion of the topic among fellow students, and provide useful resources on the topic to fellow students.

- a. Specific topics in the field of adult neurogenic disorders will be covered that have not been explored elsewhere in the program
- b. Topics may relate to neurogenic disorder, symptom, theory, assessment, intervention, and ethical or professional issues

### **Augmentative and Alternative Communication – CMSD 6611**

See section on Developmental Language.

## **Dysphagia**

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### **Dysphagia – CMSD 6612**

This course provides an overview of normal and disordered swallowing, the elements of clinical examination and instrumental assessments, and the fundamental principles of swallowing rehabilitation. It covers both pediatric and adult populations.

- a. Anatomy and physiology of normal adult swallow
- b. Site of lesion/etiology of disordered swallowing
- c. Specific swallowing disorders
- d. Clinical swallow screening and assessment
- e. Dysphagia team
- f. Instrumental assessment of dysphagia
- g. Interpretation of instrumental assessment observations
- h. MBSImp MBS interpretation training
- i. Interpretation of instrumental assessment outcomes
- j. Dysphagia management
- k. Medical, surgical, and behavioral management of dysphagia
- l. Treatment candidacy, treatment planning
- m. Dysphagia treatment
  - Behavioral management of dysphagia
  - General feeding guidelines
  - Clinical scenarios/decision making
- n. Normal swallow in infants and children
- o. Swallowing disorders in infants and children
- p. Dysphagia treatment for infants and children