

4014. Histology and Microtechniques.

Lecture and laboratory dealing with primary tissues of vertebrate animals. A practical course for laboratory technicians, pre-medical students, and other Biology students. Prerequisite: BIOL 2014. **Spring.**

4024. Developmental Biology.

A comparative study of the development of the vertebrate embryo. Cell division, gametogenesis, fertilization, cleavage, gastrulation and organ formation in the frog, chick and pig are studied. Lecture and laboratory. Prerequisites: BIOL 1014, 2014. **Fall of even-numbered years.**

4801-4894. Individual Study, Group Study, Research.

See BIOL 3801-3894 for course details and requirements. **On Demand.**

Communication Sciences and Disorders (CMDS)

Assistant Professor N. Hardman, Director

Requirements for a major in Communication Sciences and Disorders: CMDS 1013, 2023, 3003, 3013 or 3113, 3023, 3063, 4003, 4013, 4033, 4040.5, 4053, 4063, minimum of 2.5 hours of 4140.5-3; ENGL 3073 or BIOL 3064; SPCM 1003; eighteen hours in one related field, 6 of which must be Junior/Senior level. The requirement for a minor is waived.

Requirements for a minor in Communication Sciences and Disorders: CMDS 1013, 2023, 3003, 3023, 3063, 4053.

1013. Phonetics.

A study of the International Phonetic Alphabet and standard regional dialects. An analysis of speech sounds with an emphasis on phonetic transcription, pronunciation, and effective communication. **Spring.**

2023. Introduction to Communication Disorders.

The study of the development of speech in the child, etiology and principles of therapy of speech disorders, including the areas of articulation, language, voice and fluency. **Fall.**

3003. Clinical Management.

Clinical procedures for working in various practicum settings, using diagnostic and therapeutic techniques, writing behavioral objectives, observations and procedures for report writing. Prerequisite: CMDS 2023 or consent of instructor. **Fall.**

3013. Voice Disorders.

Study of normal voice function and voice pathologies including evaluation techniques and specific remediation procedures for patients with voice disorders. Prerequisite: CMDS 2023. [WAC]. **Fall of odd-numbered years.**

3023. Vocal Anatomy.

A study of the structure and function of the speaking mechanism. **Fall of even-numbered years.**

3063. Language Development.

An introduction to linguistics as well as a study of developmental psycholinguistics as related to the acquisition of language and speech as well as normal phonological development. Prerequisite: CMDS 2023. **Fall of odd-numbered years.**

3073. Linguistics.

See ENGL 3073. **Spring of odd-numbered years.**

3113. Fluency Disorders.

Study of the nature and theories of stuttering, diagnosis, and treatment procedures. Prerequisite: CMDS 2023. [WAC]. **Spring of even-numbered years.**

3801-3893. Special Studies in Speech Pathology.

This course is offered to provide competent students an opportunity to do directed study or research. Prerequisite: Junior or Senior standing and consent of instructor. **On Demand.**

4003. Introduction to Audiology.

An introduction to the problems of the deaf and hearing impaired, the classification of hearing disorders and development of audiometry through pure tone techniques are considered. **Spring of odd-numbered years.**

4013. Diagnostic Methods.

Procedural guide for evaluation of speech and language disorders in children and adults, and effective usage of available testing materials. **Spring of odd-numbered years.**

4033. Fundamentals of Speech and Hearing Science.

Basic principles of acoustics related to speech and hearing are studied. Areas covered include basic sound, mathematical computation of sound intensity and pressure, and physiological aspects of acoustics. **Fall of even-numbered years.**

4040.5. Clinical Observation.

Supervised observation of evaluation and therapeutic management of a variety of communication disorders. Prerequisite: concurrent enrollment in, or completion of CMDS 2023, 3003, or consent of instructor. **Fall, Spring.**

4053. Language Disorders.

A study of the etiology, pathology and remediation of language disorders and articulation disorders in children and adults. Prerequisite: CMDS 2023. **Spring of even-numbered years.**

4063. Articulation and Phonological Disorders.

Identification, classification, analysis, and remediation of phonological and articulation disorders in children. Prerequisite: CMDS 2023. **Spring of even-numbered years.**

4140.5-3. Clinical Practicum.

Supervised participation in evaluation and therapeutic management of a variety of communication disorders. (May be repeated for credit.) Prerequisite: CMDS 4040.5 and an overall grade point average of 2.500 or consent of instructor. **Fall, Spring.**