PT 462 Sensory Techniques (2). Neurophysiological rationale for therapeutic sensory stimulation as related to normal sensory motor development and the acquisition of motor skill. Prerequisite: Admission to the departmental program. 1 hr. lecture and 3 hrs. lab.

PT 468 Physical Therapy Organization and Administration (2). Designing, equipping, and staffing a Physical Therapy Clinical Department. Budget development, cost accounting, supervisory functions, evaluation techniques, and methods of quality assurance are covered.

PT 472 Cardio-Pulmonary Rehabilitation (2). Exercise rehabilitation following myocardial infarction, and in chronic cardiac and pulmonary disease. Includes electrocardiography arrhythmia recognition and CPR. 1 hr. lecture and 3 hrs lab.

SPEECH PATHOLOGY AND AUDIOLOGY

Faculty: J. Christensen, Departmenta/ Chair; J. King, J. Stubblefield, D. Tanner.

Objectives

The primary objective of the program in Speech Pathology and Audiology is to guide the student in critical study of the basic principles of communication disorders. As a part of this objective, students will develop the ability to analyze and think critically and creatively, understand the multifaceted character of communication processes and disorders, and develop the ability to function as a responsible member of a diagnostic and clinical team by evaluating patient and clinician performance in planning and executing effective therapy programs. The undergraduate program is primarily preparatory in nature and is designed to train students for entry into a professional graduate program. The curriculum includes courses in the normal development of speech, hearing and language and prepares students for in-depth, advanced, graduate study in specific areas of communication disorders.

At the conclusion of the preprofessional program, students receive a bachelor of science degree in speech pathology and audiology. Since certification and employment with this degree are possible in only certain states, it is strongly recommended that students who complete the preprofessional program enroll in a graduate program for full professional preparation and certification by the American Speech-Language-Hearing Association.

Admission

Applicants for admission must fulfill the general university admission requirements. Admission to the university does not constitute admission to the undergraduate preprofessional speech pathology program. In addition to applying for admission to the university, applicants must submit a separate application to the Department Chair, Speech Pathology and Audiology, Northern Arizona University, 86011.

Freshman or sophomore applicants will be assigned a faculty advisor to assist in planning their academic programs. To begin the junior year sequence of courses in speech pathology-audiology, the student must have a minimum overall cumulative grade point average of 2.75. To enroll in Clinical Practicum for either speech pathology or audiology, the student must have a minimum grade point average of 3.0 in all speech pathology-audiology courses completed or faculty waiver.

Students not fulfilling the listed minimal requirements may be granted provisional status by majority vote of the Speech Pathology-Audiology Committee for a period of one semester.

The applicant is reminded that professional certification in speech pathology-audiology, as granted through the American Speech, Language and Hearing Association, requires the completion of a master's degree. The American Speech, Language and Hearing Association Guide to Graduate Education lists a minimum grade point average of 3.0 as an admission requirement for most graduate level programs.
Bachelor of Science

Only an extended major of 54 hours is available in the Speech Pathology and Audiology program: 12 hours in the normal development of speech, hearing and language, 24 hours in speech pathology, 12 hours in audiology, and 6 hours selected from BIO 135, BIO 136, ENG 328, ENG 348, HSC 100, HSC 111, IE 141, PSY 350, PSY 355, SC 100, or SC 161. Students will also be required to take SPH 451 and 452 for limited and appropriate clinical observation/experience under supervision in the university Speech and Hearing Clinic prior to graduation. In addition she or he must complete the University Liberal Studies Program and select sufficient elective courses to total 125 credit hours.

Speech Pathology and Audiology courses are planned sequentially: SPH 202, 250, 251, and 352 are to be taken in the second year of college study; SPH 350, 355, 356, 357, 440, 450, and 452 are third year courses; SPH 354, 451, 453, and 498 are fourth year classes. Students are discouraged from taking courses out of sequence to avoid inadequate preparation problems and scheduling difficulties. Transfer students will need to work closely with their advisor to minimize difficulties.

SPH: SPEECH PATHOLOGY AND AUDIOLOGY COURSES


SPH 250  Introductory Speech Pathology (3). Introduction to the profession of speech pathology, including fields of study, places of employment, history of the discipline, national organizations, and types of disorders encountered; emphasis placed upon the multidisciplinary aspects of the profession.

SPH 251  Speech and Language Anatomy and Physiology (3). Structure and function of the mechanisms used in speech and language.

SPH 350  Childhood Language Development (3). The normal development of speech and language including the relationship of perceptual, intellectual, social-emotional and motor factors; emphasis on language systems and language acquisition.

SPH 352  Articulation Development and Disorders (3). A study of normal phonological development and the functional disorders thereof. The course will cover evaluation and treatment of articulation disorders in both individual and group settings. Prerequisite: SPH 202, SPH 251.

SPH 355  Speech Disorders (3). An introduction to the nature of and therapy procedures for disorders of articulation, fluency, and adult language; emphasis on treatment programs.

SPH 356  Introduction to Audiology (3). Anatomy and physiology of the auditory system; introduction to the profession, hearing conservation procedures, and pathologies of the system.

SPH 358  Speech and Hearing Disorders of School-Age Children (3). A survey course of speech, language, and hearing problems that a teacher may encounter in children in the classroom. Emphasis is on the practical aspects of how the disorder exhibits, how to recognize the disorders, what they mean to the educational/social development of the child, and how and where to get professional help.

SPH 440  Clinical Methods (3). Selected materials, techniques and procedures used in the evaluation and treatment of speech and language disorders. Prerequisites: SPH 202, 250, 251.

SPH 450  Childhood Language Disorders (3). Concepts and issues of the cognitive, linguistic, and communicative aspects of language development and their relationships to language delayed and language disordered populations.

SPH 451  Clinical Practice in Speech Pathology (T-3). Supervised experience in speech rehabilitation; observation and participation in therapy procedures in various clinical settings including public schools; administration of diagnostic tests and application of principles of speech correction in clinical settings. May be repeated for a maximum of 6 hours credit. Prerequisites: SPH 202, 250, 25T.

SPH 452  Clinical Practice in Audiology (3). Supervised experience in clinical assessment of auditory disorders. Evaluation of hearing sensitivity, auditory perception and processing, hearing aid evaluation, and observation of referral procedures. May be repeated for a maximum of 6 hours credit.
SPH 453 **Speech-Language Assessment** (3). Practical application of the cognitive, linguistic, and communicative theories of language development to the assessment and intervention of language delayed and language disordered populations. Prerequisites: SPH 350, 450.

**Graduate Courses**

SPH 550 **Seminar In Speech and Hearing Sciences** (3).

SPH 551 **Neuropathologies of Speech: Assessment and Treatment** (3).

SPH 552 **Aphasia and Related Disorders in Adults** (3).

SPH 554 **Advanced Evaluation** (3).

SPH 555 **Organic Speech Disorders** (3).

SPH 556 **Communication Processes and Acquisition** (3).

SPH 558 **Speech Correction for the Classroom Teacher** (3).

SPH 560 **Alaryngeal Speech** (3).

SPH 559 **Speech and Hearing Problems of the Aged** (3).

SPH 602 **Practicum** (1-8)

SPH 651 **Stuttering: Diagnosis and Therapy** (3).

SPH 652 **Voice Disorders: Assessment and Treatment** (3).

SPH 653 **Psycholinguistic Disorders** (3).

SPH 654 **Seminar In Case Studies and Management** (3).

SPH 655 **Administration of Speech and Hearing Agencies** (3).

SPH 656 **Diagnostic Audiology** (3).

SPH 657 **Aural Rehabilitation** (3).