

## BRIEF DESCRIPTION of AuD COURSES

### **SPTHAUD 5131 Hearing and Science. 3 credits.**

The basic principles of acoustics related to hearing will be introduced along with the anatomy and physiology of the auditory system. Topics include: generation, transmission, and measurement of sound; peripheral and central auditory system. Also includes basic electronics and instrumentation.

### **SPTHAUD 5499 Issues in Communication Disorders. 1 credit.**

Presentations and lectures on a variety of professional and clinical issues in audiology and speech language pathology.

### **SPTHAUD 5991 Diagnostic Audiology I. 3 credits.**

Basic audiology test battery (air, bone, speech, masking and immittance) for beginning Au.D students.

### **SPTHAUD 6100 Research in Communication Disorders. 3 credits.**

Ethical and methodological considerations in speech language pathology and audiology research. Critical evaluation of research. Application of research to clinical practice.

### **SPTHAUD 6111 Clinical Laboratory I. 1 credit.**

This foundational course is designed for first-year Doctor of Audiology students to develop practical skills in essential audiometric testing. Students will gain hands-on experience in performing pure tone air and bone conduction testing, as well as immittance audiometry. Laboratory sessions provide opportunities to apply theoretical knowledge in a controlled clinical setting, preparing students for advanced diagnostic coursework and clinical practice.

### **SPTHAUD 6130 Neuroscience. 3 credits.**

The structure and function of the nervous system are presented and analyzed, with an emphasis on hearing, speech, and language central organizations. Emphasis is on normal structure and function so the clinician can better understand abnormalities.

### **SPTHAUD 6201 Anatomy and Physiology of Speech and Hearing. 4 Credits.**

Detailed anatomy and physiology of the systems involved in speech and hearing, including cadaver dissection. The nervous system, respiration, phonatory-articulatory systems, and auditory system are included. Laboratory required.

### **SPTHAUD 6203 Advanced Diagnosis in Audiology. 3 credits.**

This course focuses on the development, administration, and interpretation of advanced procedures in audiology. Included are immittance audiometry, otoacoustic emissions, speech audiometry, central auditory function, and tests for pseudohypacusis. Integration of the total audiological test battery to assess the site of lesion of aural pathologies will be examined. Clinical laboratory is required.

### **SPTHAUD 6205 Auditory Evoked Potentials. 3 credits.**

This course is designed to explore the normal neuroanatomy and neurophysiology of the auditory system. Included will be an overview of normal and abnormal function, assessment, and treatment techniques. Administration and interpretation of auditory brainstem response testing will be emphasized. Clinical laboratory is required.

### **SPTHAUD 6207 Introduction to Hearing Aids. 3 credits.**

This course emphasizes hearing aid hardware, signal processing, and basic clinical procedures including electroacoustical analysis and real-ear measurement.

### **SPTHAUD 6221 Advanced Hearing Aids. 3 credits.**

This course places an emphasis on selection of hearing aid parameters, verification of fit, validation of benefit, orientation to use and care, and troubleshooting. Prerequisite: SPTHAUD 6207.

### **SPTHAUD 6227 Medical Audiology. 3 credits.**

A study of the interaction among the anatomical and physiological components of the auditory system and various medical conditions as reflected in the sound transmission characteristics of the auditory system.

### **SPTHAUD 6229 Medical Audiology II. 3 credits.**

This course continues the study of the interaction among the anatomical and physiological components of the auditory system and various medical conditions. This course will cover introductory concepts of pharmacology and ototoxicity and the various interactions of drugs and their effects on patient hearing, balance, emotional, physical, and cognitive function. Imaging techniques of the auditory structures will be covered.

### **SPTHAUD 6231 Auditory Processing Disorders. 3 credits.**

This course reviews the anatomy and physiology of the central auditory pathway. The development, administration and interpretation of tests of central auditory function are presented as well as current remediation strategies. Clinical laboratory is required.

**SPTHAUD 6235 Psychoacoustics and Speech Perception. 3 credits.**

The determination of psychological correlates of the physical parameters of acoustics will be studied. The general problem of inferring sensation or perception from behavioral data utilizing psychophysical methods and decision theory will be examined.

**SPTHAUD 6237 Advanced Electrophysiological Techniques. 3 credits.**

This course investigates origins and applications of evoked potentials looking at early, middle, and late responses including ECoG, ABR, MLR, LAER, and endogenous (e.g., MMN and P300) potentials. Case studies and detailed analyses of wave forms are emphasized.

**SPTHAUD 6247 Hearing Conservation. 3 credits.**

The student learns how to implement a comprehensive noise program following the OSHA guidelines. Topics include noise measurement, noise-hazards, noise-abatement, and noise-safety programs. Hearing conservation is discussed.

**SPTHAUD 6273 Pediatric Audiology. 3 credits.**

A developmental approach to the evaluation of hearing of the neonate, infant and young child will be studied. The principles and procedures for screening, testing, and monitoring the pediatric client will be presented. Laboratory.

**SPTHAUD 6499. Billing and Coding. 1 credit.**

Correct billing and coding practices are key to successful audiology practitioners. This course reviews coding basis, advanced issues, federal regulations and current billing practices.

**SPTHAUD 6581 Cochlear Implants and Other Specialized Hearing Devices. 3 credits.**

This course explores the treatment of individuals, both adults and children, with profound hearing loss. Students will examine the function, assessment, and performance of cochlear implants, tracing their evolution from initial development to current practices. The curriculum emphasizes contemporary approaches to assessment and therapy, integrating technologies such as implantable hearing aids, and assistive listening devices to enhance communication and quality of life.

**SPTHAUD 6583 Advanced Implantable Devices. 2 credits.**

This course continues the study of implantable devices. Students will receive hands-on experience with programming and troubleshooting of cochlear implants and other auditory implantable devices.

**SPTHAUD 6701 Clinical Practicum Audiology. 1 credit.**

This clinical practicum course involves supervised clinical experiences for doctor of audiology students.

**SPTHAUD 6703 Clinical Practicum Audiology. 1 credit.**

This clinical practicum course involves supervised clinical experiences for doctor of audiology students.

**SPTHAUD 6705 Clinical Practicum Audiology. 1 credit.**

This clinical practicum course involves supervised clinical experiences for doctor of audiology students.

**SPTHAUD 6801 Clinical Practicum Audiology. 2 credits.**

This clinical practicum course involves supervised clinical experiences for doctor of audiology students.

**SPTHAUD 6803 Clinical Practicum Audiology. 2 credits.**

This clinical practicum course involves supervised clinical experiences for doctor of audiology students.

**SPTHAUD 6805 Clinical Practicum Audiology. 2 credits.**

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**SPTHAUD 6901 Clinical Practicum Audiology. 4 credits.**

This clinical practicum course involves supervised clinical experiences for doctor of audiology students.

**SPTHAUD 6903 Clinical Practicum Audiology. 4 credits.**

This clinical practicum course involves supervised clinical experiences for doctor of audiology students.

**SPTHAUD 7131 Pediatric Aural Rehabilitation. 3 Credits.**

This course focuses on the habilitation/rehabilitation of children, age 0 to 18, with hearing impairments. Psychological, social, and educational aspects of hearing impairment in children are addressed. Parental and family counseling are discussed. Educational options, assistive technology, and speech perception testing are included.

**SPTHAUD 7211 Basic Vestibular Assessment 3 credits.**

This course will focus on the functional anatomy and physiology of the vestibular system, with emphasis on administration and interpretation of standard clinical tests of ENG. Extensive laboratory work will be required. This course is the prerequisite for the advanced vestibular testing and rehabilitation course.

**SPTHAUD 7215 Adult Aural Rehabilitation. 3 credits.**

This course focuses on adult (18 years and older) aural rehabilitation. Psychological and social aspects of hearing impairment are discussed. Assistive listening devices are addressed. Counseling the adult patient, structured aural rehab sessions, and the latest methods for adult hearing aids fittings are presented.

**SPTHAUD 7225 Genetics. 1 credit.**

The science of genetics as it applies to audiology and hearing.

**SPTHAUD 7231 Clinical Rotation. 1 credit.**

This is a 4-to-6-week offsite clinical audiology placement. It may be repeated for credit.

**SPTHAUD 7233 Research Laboratory Experience. 1 credit.**

Since solving clinical problems involves procedures very similar to those used by the laboratory researcher, Au.D practitioners must have some knowledge of research methods. Students will team up with a research scientist and assist or participate in research activities over the course of a full semester.

**SPTHAUD 7239 Geriatric Audiology. 2 credits.**

This course is an overview on the anatomical and physiological effects of aging on the peripheral and central auditory system. Subjective and objective measurements will be discussed as well as rehabilitation methods.

**SPTHAUD 7311 Hearing Aid Modification and Repair. 1 credit.**

This course provides in-depth training on hearing aid troubleshooting, repair techniques, and essential maintenance. Special attention is given to managing common issues such as cerumen blockage and its removal to optimize device performance.

**SPTHAUD 7319 Practice Management in Audiology. 3 credits.**

This course considers the non-clinical aspects of professional practice. Topics presented include ethics, employment, billing, information management, suppliers and manufacturers, private practice, laws and regulations.

**SPTHAUD 7323 Advanced Vestibular Testing and Rehabilitation. 3 credits.**

While ENG testing remains the primary tool for evaluating vestibular dysfunction, in recent years new computer assisted procedures have been developed that assess the patient's posture and balance functions. This course will focus on these new procedures which, in combination with ENG, provides a more complete picture of both peripheral and central vestibular problems.

**SPTHAUD 7331 Tinnitus. 1 credit.**

Generation, assessment, and management of tinnitus will be discussed. Associated pathologies, quality of life scales, rehabilitative devices, and specific rehabilitation procedures are included.

**SPTHAUD 7501 Externship I. 6 credits.**

This course is part of a 9 to 12 month externship designed to provide the student with at least 35 hours per week of audiology experience. May be repeated until clinical training is completed.

**SPTHAUD 7502 Externship II. 9 credits.**

This course is part of a 9 to 12 month externship designed to provide the student with at least 35 hours per week of audiology experience. May be repeated until clinical training is completed. Prerequisite: satisfactory completion of Externship I.

**SPTHAUD 7503 Externship III. 9 credits.**

This course is part of a 9 to 12 month externship designed to provide the student with at least 35 hours per week of audiology experience. May be repeated until clinical training is completed. Prerequisite: satisfactory completion of Externship II.