

AUDIOLOGY (AUDI)

Subject-area course lists indicate courses currently active for offering at the University of Louisville. Not all courses are scheduled in any given academic term. For class offerings in a specific semester, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>).

500-level courses generally are included in both the undergraduate- and graduate-level course listings; however, specific course/section offerings may vary between semesters. Students are responsible for ensuring that they enroll in courses that are applicable to their particular academic programs.

Course Fees

Some courses may carry fees beyond the standard tuition costs to cover additional support or materials. Program-, subject- and course-specific fee information can be found on the Office of the Bursar website (<http://louisville.edu/bursar/tuitionfee/>).

AUDI 600. Anatomy and Physiology of Hearing 3 Units

Description: Intensive study of the gross aspects of anatomy associated with normal hearing, including the peripheral and central auditory system. For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

AUDI 604. Essential Techniques in Audiometry for Pediatrics and Adults 3 Units

Description: The epidemiology of hearing loss. Basic tests of auditory function including pure tone audiometry, speech audiometry and immittance. Focus on both pediatric and adult aspects of testing, with additional topics related to newborn testing. Principles of masking and pathologic correlates of hearing loss discussed.

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AUDI 605. Introduction to Audiological Techniques and Rehabilitation 3 Units

Term Typically Offered: Fall Only

Description: This course provides an introduction to the evaluation, screening and habilitation/rehabilitation of adults and children with hearing impairment. Topics include tests of auditory function, effects of auditory pathology, and amplification.

Note: Cross-listed with CMDS 405.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

AUDI 606. Acoustics and Speech Acoustics 3 Units

Description: Study of sound and its measurement. Relationship of sound to human hearing. Speech acoustics and perception of speech. For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

AUDI 608. Auditory Anatomy and Physiology II 3 Units

Description: Structure and function of the central auditory system with an emphasis on electrophysiologic assessment of cortical and subcortical pathways for clinical purposes.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

AUDI 610. Clinical Clerkship I 1 Unit

Fee: An additional \$125.00 is charged for this course.

Description: A two-semester sequence of directed observation in the audiology clinic. Participation in interviewing patients, eliciting a complete history, preparing written technical reports and record keeping. Includes observations during the first semester. 1 credit hour each semester.

Course Attribute(s): CBL - This course includes Community-Based Learning (CBL). Students will engage in a community experience or project with an external partner in order to enhance understanding and application of academic content.

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AUDI 612. Pathology of the Auditory-Vestibular System 3 Units

Description: Study of pathology of the auditory-vestibular system with special reference to clinical symptomatology. Etiology, epidemiology, pathogenesis, diagnosis and treatment of auditory-vestibular disease and injury.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

AUDI 614. Clinical Techniques in Audiology I 1 Unit

Fee: An additional \$25.00 is charged for this course.

Description: Part one of a two-semester sequence of directed laboratory exercises. Laboratory exercises will give students hands-on experience with clinical techniques designed to evaluate hearing.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

AUDI 615. Clinical Techniques in Audiology II 2 Units

Fee: An additional \$25.00 is charged for this course.

Description: Part two of a two-semester sequence of directed laboratory exercises. Laboratory exercises will give students hands-on experience with clinical techniques designed to evaluate hearing.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

AUDI 618. Instrumentation and Electronics in Audiology 2 Units

Description: Basics of electronic circuitry, especially in audiometric instrumentation and amplification systems. Includes instrumentation calibration, trouble-shooting and repair. Analog, analog-digital hybrid, and digital signal processing.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

<p>AUDI 619. Audiologic Counseling & Patient Communication 1 Unit Description: An exploration of the communication and counseling relationship between student clinician and patient. Students will have an opportunity to develop and refine effective communication and counseling via interaction with standardized patients and personal reflection. For class offerings for a specific term, refer to the Schedule of Classes (http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm)</p>	<p>AUDI 625. Audiologic Counseling 1-2 Units Prerequisite(s): Students in Doctor of Audiology Program. Description: Review of the complex psychosocial and emotional aspects arising within families in the presence of both pediatric and adult hearing loss. Examination of counseling approaches for "non-professional" counseling. For class offerings for a specific term, refer to the Schedule of Classes (http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm)</p>
<p>AUDI 620. Clinical Clerkship II 2 Units Fee: An additional \$125.00 is charged for this course. Description: A three-semester sequence of introductory level clinical audiometry under the aegis of an experienced clinician. Mastery of basic skills such as threshold determination for pure tones and speech stimuli, masking, auditory discrimination measurements, tympanometry, and calibration. 2 credit hours each semester. Course Attribute(s): CBL - This course includes Community-Based Learning (CBL). Students will engage in a community experience or project with an external partner in order to enhance understanding and application of academic content.</p>	<p>AUDI 626. Assessment and Management of Vestibular Disorders 3 Units Description: Study of the contribution of the vestibular system to balance and orientation. Technologies and procedures for assessing the dizzy patient. Management of vestibular disorders. For class offerings for a specific term, refer to the Schedule of Classes (http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm)</p>
<p>For class offerings for a specific term, refer to the Schedule of Classes (http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm)</p>	<p>AUDI 627. Tinnitus 2 Units Term Typically Offered: Spring Only Description: The purpose of the course is to provide an overview of tinnitus applications in Audiology. Topics will include defining tinnitus and discussing theoretical foundations, tinnitus in relation to hearing impairment, psychological mechanisms involved with tinnitus, tinnitus in the various age populations, drug induced tinnitus, music's effect on tinnitus, acoustic shock, assessing and evaluating a patients tinnitus for clinical decision making, hearing aids/cochlear implants as treatment for tinnitus, additional intervention methods, misophonia, phonophobia, management of tinnitus in patient's across the lifespan, emerging approaches to treating tinnitus, and business management considerations when treating patient's with tinnitus. For class offerings for a specific term, refer to the Schedule of Classes (http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm)</p>
<p>AUDI 621. Audiologic Rehabilitation 4 Units Term Typically Offered: Fall Only Description: Management strategies for hearing loss beyond the hearing aid. Topics include auditory training, speech reading, communication repair strategies, counseling, adjustment to hearing aids, assistive listening devices and cochlear implants. For class offerings for a specific term, refer to the Schedule of Classes (http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm)</p>	<p>AUDI 628. Differential Diagnosis in Audiology 2 Units Description: Interpreting the audiologic test battery. Integrating audiologic test results with other diagnostic procedures (i.e., radiologic, neurologic, pathologic, etc). Advanced concepts in test construction, delivery and interpretation. Using test results to plan remediation. For class offerings for a specific term, refer to the Schedule of Classes (http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm)</p>
<p>AUDI 622. Electrophysiologic Techniques in Audiology 3 Units Fee: An additional \$25.00 is charged for this course. Description: Principles of biological potentials, signal averaging, amplification and filtering. Clinical utility of the brainstem auditory evoked response with attention to diagnostic techniques and peripheral hearing assessment. For class offerings for a specific term, refer to the Schedule of Classes (http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm)</p>	<p>AUDI 629. Cochlear Implants and other Implantable Hearing Devices 4 Units Description: Comprehensive Study of cochlear implantation, BAHA and middle ear implantation including: general anatomy, device components, patient selection and evaluation, speech coding strategies, mapping/programming, troubleshooting, and verification. For class offerings for a specific term, refer to the Schedule of Classes (http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm)</p>
<p>AUDI 623. Audiologic Electrophysiology II 1 Unit Description: Clinical acquisition of middle and late auditory evoked potentials with applications for both diagnostic and rehabilitative ideology. Equal emphasis is placed on acquisition and interpretation of those evoked responses. For class offerings for a specific term, refer to the Schedule of Classes (http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm)</p>	<p>AUDI 630. Amplification Selection and Fitting 3 Units Fee: An additional \$25.00 is charged for this course. Description: Determining candidacy and benefit from amplification. Selecting appropriate amplification systems and options including assistive listening devices and implantable technologies. Review of current technologies and their clinical efficacy. Introduction to the business aspects of hearing aid dispensing. For class offerings for a specific term, refer to the Schedule of Classes (http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm)</p>
<p>AUDI 624. Amplification Technology 3 Units Fee: An additional \$25.00 is charged for this course. Description: Principles of amplification electronics, electroacoustics and acoustics in audiologic (re)habilitation. Real ear measurements. ANSI specifications. Earmold acoustics. Modifying acoustical parameters. For class offerings for a specific term, refer to the Schedule of Classes (http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm)</p>	

<p>AUDI 632. Professional Issues in Audiology 2 Units</p> <p>Description: Overview of the social, political, ethical, and economic climate in hearing health care delivery. Interprofessional relationships and responsibilities. Supervision of other professionals. Licensure and certification.</p> <p>For class offerings for a specific term, refer to the Schedule of Classes (http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm)</p>	<p>AUDI 640. Special Topics in Audiology 1-3 Units</p> <p>Description: An elective course designed to focus on specific topics in audiology. Subject matter to be determined by the faculty and students. May be repeated to a limit of 6 credits.</p> <p>For class offerings for a specific term, refer to the Schedule of Classes (http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm)</p>
<p>AUDI 634. Electrophysiologic Techniques in Audiology II 1 Unit</p> <p>Description: This course introduces brain imaging techniques for cognitive brain research in Audiology with a focus on late auditory event-related potentials (ERP's). The course will focus on four main areas: 1) theory; 2) experimental design; 3) data collection, analysis, and interpretation; and 4) the use of late potentials in audiological practice. Basic tutorials on EEG and ERP software packages will include ASA and EEGLAB.</p> <p>For class offerings for a specific term, refer to the Schedule of Classes (http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm)</p>	<p>AUDI 642. Gerontologic Audiology 3 Units</p> <p>Description: A broad study of the human aging process at the cellular, organ, system and social levels with respect to the hearing process. Study of the hearing-impaired elderly in a social context with consequences for case management.</p> <p>For class offerings for a specific term, refer to the Schedule of Classes (http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm)</p>
<p>AUDI 635. Audiology Internship 4 Units</p> <p>Fee: An additional \$125.00 is charged for this course.</p> <p>Description: A three-semester sequence of supervised patient care in a variety of sites closely associated with the university. Student clinicians will assume increasing responsibility for the full range of basic and intermediate level audiological procedures and interpretation. 4 credits each semester.</p> <p>Course Attribute(s): CBL - This course includes Community-Based Learning (CBL). Students will engage in a community experience or project with an external partner in order to enhance understanding and application of academic content.</p>	<p>AUDI 646. Advanced Topics in Medical Audiology 4 Units</p> <p>Term Typically Offered: Spring Only</p> <p>Description: This course will introduce students to a variety of content areas related to advanced topics in medical audiology. Topic areas include special populations and diseases in vestibular audiology, imaging, intraoperative monitoring, surgical and medical aspects of implantable devices, and inter-professional practice and education.</p> <p>For class offerings for a specific term, refer to the Schedule of Classes (http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm)</p>
<p>For class offerings for a specific term, refer to the Schedule of Classes (http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm)</p>	<p>AUDI 648. Hearing Science I 3 Units</p> <p>Prerequisite(s): Permission of instructor.</p> <p>Description: The first in a two-course sequence in Hearing Science. It will survey contemporary theory and research in audition, with emphasis on modern mathematical and psychological methods. Major topics will include the anatomy and physiology of the auditory system, measurement and control of sound, auditory signal analysis, and basic auditory abilities such as detection, discrimination, and masking. Note: Cross-listed with PSYC 646</p>
<p>AUDI 636. Pediatric Audiology 3 Units</p> <p>Term Typically Offered: Summer Only</p> <p>Description: The purpose of this course is to provide an overview of Pediatric Audiology. Topics will include review of the Joint Committee on Infant Hearing position statement, medical evaluation and management of hearing loss in children, newborn hearing screening, hearing test protocols (BOA, VRA, CPA), evaluation of hearing loss in children with special needs, evaluation of speech perception in children, APD testing, hearing aid fitting, the role of the test assistant, communication approaches and communication bias, working with multicultural/multilingual families, counseling and collaboration with children and families, ANSD and mild/unilateral hearing loss.</p>	<p>For class offerings for a specific term, refer to the Schedule of Classes (http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm)</p> <p>AUDI 650. Research Methods 3 Units</p> <p>Description: Students will design a clinical research project through: a critical review of the literature, determination of appropriate research design, and a statistical review. Students will prepare an application for the Human Studies Protection Program Office.</p> <p>For class offerings for a specific term, refer to the Schedule of Classes (http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm)</p>
<p>For class offerings for a specific term, refer to the Schedule of Classes (http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm)</p>	<p>AUDI 652. Prevention of Hearing Loss 2 Units</p> <p>Description: Focuses on the effect of noise on the auditory system, noise measurement and abatement, hearing conservation programming, OSHA standards, etc. The medical-legal aspects of hearing impairment.</p>
<p>AUDI 638. Educational Audiology 3 Units</p> <p>Description: Overview of current management options for the (re)habilitation of children with hearing loss, including: educational issues, amplification, FM systems, classroom listening systems and counseling.</p> <p>For class offerings for a specific term, refer to the Schedule of Classes (http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm)</p>	<p>For class offerings for a specific term, refer to the Schedule of Classes (http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm)</p>

AUDI 654. Advanced Auditory Processing 3 Units

Term Typically Offered: Spring Only

Fee: An additional \$25.00 is charged for this course.

Description: Special study of the central auditory nervous system with attention to normal and disordered auditory function past the auditory periphery (e.g., linguistic, cognitive, and suprathreshold deficit consideration). Assessment and current strategies for management of auditory processing disorders.

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AUDI 656. Practice Management in Audiology 4 Units

Term Typically Offered: Fall Only

Description: Organizing, managing and expanding an audiologic practice. Determining costs and fees, accounts management, quality assurance, third-party reimbursement, contracting for services, demographic trends, business and professional ethics, professional liability, marketing, certification and licensure.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

AUDI 660. Investigation in Audiologic Practice 1-3 Units

Description: Directed course in which students investigate specific clinical problems in audiology. Will include research on a topic of clinical or professional interest. Investigation eventuates in a publishable paper. May be repeated to a maximum of 9 credits.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

AUDI 670. Clinical Externship 9 Units

Description: A 3-semester sequence of advanced clinical practicum under the direction of a faculty member or preceptor in an external practicum. Each externship is custom-tailored to the interests of the trainee. May involve relocation or travel.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

AUDI 679. Independent Study in Audiology 1-6 Units

Prerequisite(s): Requires consent of instructor in order to register.

Description: Individualized course with topics determined by student and instructor. May be repeated.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)

AUDI 680. Special Topics in Audiology 1-3 Units

Term Typically Offered: Fall Only

Description: Discussion covering current ideas in audiology as they relate to clinical practice and research. An emphasis is placed on contemporary and/or advanced topics relevant for the more experienced student.

For class offerings for a specific term, refer to the Schedule of Classes (<http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm>)