**Audiology**

**AUD 630L  Electroac Char of Amp Sytm Lab  1 cr**
This class will take a practical, "hands-on approach" to working with hearing aid amplification and will compliment the written work presented in AUD 630 - Electroacoustic Characteristics of Amplification Systems. Topics covered will include earmolds and earmold impressions, earmold and tubing modifications, hearing aid components, measurement of electroacoustic characteristics of hearing aids, troubleshooting hearing aid problems, and performing minor repairs on hearing aids.
Co-requisite: AUD 630

**AUD 631L  Sel Fit & Verif of Amp Sys Lab  1 cr**
This class will take a practical, "hands-on approach" to working with hearing aid amplification and will compliment the written work presented in AUD 631 - Selection, Fitting, & Verification of Amplification Systems. Topics covered will include selection of appropriate hearing aids, modifications and adjustment of digital hearing aids, manipulation of hearing aid software, verification of hearing aid performance with real ear measurement, and use of FM systems and other hearing aid accessory devices.
Co-requisite: AUD 631

**AUD 612  Anatomy-Physio Hearing Mech  4 cr**
Study of the anatomy and physiology of the nervous system, the anatomy and physiology of the outer, middle, inner ear, including the vestibular system, and the central auditory nervous system.

**AUD 613  Psychoacoustics  3 cr**
Study of the principles, procedures and research involved in the field of psychoacoustics and of the relationships between the physical dimensions of auditory stimuli and the resultant perceptual experience as well as the relationships among psychoacoustic testing and both auditory physiology and the audiologic evaluation process. Participation in laboratory assignments will be required.

**AUD 614  Instrumentation and Acoustics  3 cr**
Study of basic electricity, acoustics and measurement of sound properties, wave analysis, transducers, measuring and calibration systems, speech processing systems, and system interaction and integration.

**AUD 616  Resrch Design Hearing Sci  3 cr**
Research designs utilized in the hearing sciences; elements of research proposals and studies; how to critique a research study; how to conduct a literature review; APA format; students will be required to write précis of research articles and write a research proposal. Elements of modern statistics including sets and functions, probability theory, hypothesis testing, analysis of variance models, correlation, and regression.

**AUD 621  Professional Issues  3 cr**
This course will address a variety of professional issues such as organizations, societies, and their histories; codes of ethics; scopes of practice; credentialing and licensure; the development of the AUD; guidelines and position statements generated by ASHA and AAA; standards and best practices; methods and models of service delivery; and audiology practice management.

**AUD 622  Medical Audiology  4 cr**
This course will address acquired and congenital diseases and disorders of the outer, middle, and inner ear and the central auditory nervous system occurring across the lifespan; imaging techniques; non-audiologic medical and surgical interventions for these conditions; and cerumen management techniques; and appropriate methods for monitoring of patients prescribed potentially ototoxic medications.

**AUD 623  Pharma & Ototox Monitoring  3 cr**
This course will provide the basic science background necessary to understand the effects of medications on the auditory and balance systems. This course will also address drug treatment strategies for hearing loss and balance disorders. Topics will include mechanisms of drug actions, side effects, how age and disease affect these mechanisms, and specific effects of certain drugs on the hearing and balance system. This course will additionally address appropriate methods for identification and monitoring of patients prescribed potentially ototoxic medications.

**AUD 630  Electroac Char of Amp Systems  3 cr**
This course will address styles and types of earmolds, hearing aids, and assistive listening devices; components common to all amplification systems as well as optional features (such as directional microphones, volume controls, telecoils, etc.) and their electroacoustic properties and functioning; use of ANSI standards; physical, acoustic and electroacoustic modifications of earmolds and amplification systems.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUD 632</td>
<td>Hearing Aid Lab</td>
<td>1 cr</td>
</tr>
<tr>
<td>AUD 633</td>
<td>Advanced Sensory Aids</td>
<td>3 cr</td>
</tr>
<tr>
<td>AUD 640</td>
<td>Basic Audiologic Assessment</td>
<td>3 cr</td>
</tr>
<tr>
<td>AUD 641</td>
<td>Immit &amp; Otoacous Emission Meas</td>
<td>3 cr</td>
</tr>
<tr>
<td>AUD 642</td>
<td>Pediatric Audiology</td>
<td>3 cr</td>
</tr>
<tr>
<td>AUD 643</td>
<td>Audiology and Aging</td>
<td>3 cr</td>
</tr>
<tr>
<td>AUD 645</td>
<td>Evoked Potential Measures</td>
<td>3 cr</td>
</tr>
<tr>
<td>AUD 647</td>
<td>Adult Audio Rehabilitation</td>
<td>3 cr</td>
</tr>
<tr>
<td>AUD 648</td>
<td>Counseling Hear Imp-Families</td>
<td>3 cr</td>
</tr>
<tr>
<td>AUD 649</td>
<td>Ped Habit &amp; Educ Audiology</td>
<td>3 cr</td>
</tr>
<tr>
<td>AUD 651</td>
<td>Assess-Treatmnt Cent Aud Proc</td>
<td>3 cr</td>
</tr>
<tr>
<td>AUD 653</td>
<td>Industrial-Forensic Audiology</td>
<td>3 cr</td>
</tr>
<tr>
<td>AUD 654</td>
<td>Tinnitus and Hyperacusis</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

This course will address the principles of verification and validation; tools used to verify appropriate fitting of amplification systems (such as real-ear probe-mic equipment) and techniques used to validate fitting (such as software packages, and subjective and objective audiologic measures); cochlear implant remapping.

This course will address advanced technologies for individuals with hearing impairment such as cochlear and brainstem implants, vibrotactile aids, and implantable devices, as well as the selection and fitting of these technologies.

This course will address the principles of cross-check, the test battery approach, differential diagnosis, relevant test equipment, instruments, and transducers, administration and interpretation of the pure-tone testing, clinical masking, case history, otoscopy, and tuning-fork tests, speech audiometry; tests for pseudo-hypoacusis, ototoxicity, site-of-lesion testing and historical assessments; and informal assessment procedures.

This course will address the principles of verification and validation; tools used to verify appropriate fitting of amplification systems (such as real-ear probe-mic equipment) and techniques used to validate fitting (such as software packages, and subjective and objective audiologic measures); cochlear implant remapping.

This course will address the development, assessment, and interpretation of an auditory processing test battery across the lifespan, as well as intervention approaches.
AUD 655  Spch-Lang Path for Audiologist   3 cr
This interprofessional education (IPE) course will address the foundational knowledge and skills necessary for audiologists to work together with speech-language pathologists in interprofessional collaborative teams. Specifically, this course will address the scope of practice in audiology, speech-language screening, speech-language report literacy and special topics.

AUD 656  Vestibular Assessment   4 cr
This course will include a discussion of the peripheral and central anatomy and physiology of the balance system and the test measures used to assess the function of this complex system. Topics will include case history and screening measures, as well as test protocols and analysis of results on electronystagmography/videonystagmography, rotational testing, posturography, and vestibular evoked myogenic potentials. Taught Spring Semester.

AUD 657  Management of Vestibular Disor  2 cr
This course will focus on peripheral and central disorders of the vestibular system and the interpretation of results on diagnostic tests in disordered patients. Pharmacological and surgical treatments of dizziness will be discussed, as well as rehabilitative techniques to manage the vestibular pathology.

AUD 658  Advanced Neurophys Measures  3 cr
This course will address advanced electrophysiological techniques, including ENOG, ALR, ERPs (i.e. P300, etc), and neuroimaging techniques (fMRI and PET) with an emphasis on auditory and cognitive processing, across the lifespan; source localization techniques; instrumentation; stimulus and acquisition parameters; measurement procedures; analysis and interpretation.

AUD 661  Developmnt-Managemnt Aud Prac  3 cr
This course will address issues associated with audiology practice management including techniques involved in developing a mission statement and a business plan; working with an accountant; determining type, location, and name of practice; regulation, licensure, and hiring a legal advisor; equipment and service delivery decisions; establishing accounts with suppliers, paying bills and budgeting; third-party reimbursement, Medicaid, and Medicare; hiring and supervision; demographics and marketing; use of outcome data; and professional writing.

AUD 670  Clinical Practicum I  1 TO 2 cr
Students will become familiar with and conduct basic audiologic procedures on non-clinic populations New Course Description: by means of various lab assignments. Students will also be involved in clinical activities in the USA Speech & Hearing Center while under direct supervision. Special Fee.

AUD 672  Clinical Practicum III  3 TO 6 cr
Students will obtain experience administering a number of audiologic assessment and intervention techniques to clinic populations in the USA Speech and Hearing Center and external practicum sites while under direct supervision. Special Fee.

AUD 673  Supervision in Audiology  2 cr
This course includes a description of supervision and supervisors, the development of supervisory behaviors, components of the supervisory process, models for the assessment of supervisees, analyzing the supervisory process, supervision across settings, supervision of non-audiology personnel, and accountability.

AUD 674  Special Projects in Audiology  3 cr
Student will be required to develop a variety of projects during their academic training, some of which will be further developed and completed during this course.

AUD 675  Special Topics in Audiology  1 cr
Student will identify cases or service delivery issues of clinical or professional interest and present these cases or issues to fellow students, clinical supervisors, and faculty via chat room in a grand rounds format.

AUD 676  Externship  3 TO 11 cr
Off-campus opportunity to obtain clinical experience in a full-time setting. In addition, students may be required to identify cases or service delivery issues of clinical or professional interest and present these cases or issues to fellow students, clinical supervisors, and faculty via an online forum in a grand rounds format.