Audiology

**AUD 6113** Grand Rounds (1 semester credit hour) Case staffing, presentations and discussion of patient audiological diagnostic and rehabilitation and selected topics in a group session attended by students and faculty. Pass/Fail only. May be repeated for credit (6 semester credit hours maximum). Prerequisites: BBSC majors only and department consent required. (1-0) Y

**AUD 6114** Instrumentation (1 semester credit hour) Setting up equipment utilized in audiological diagnosis and assistive technology fitting and verification. Review of measurement techniques for basic electronics, room acoustics/reverberation, and digital signal processing with reference to applicable ANSI standards. Laboratory exercises involve use of sound level meters, transducers, multimeters, wireless technology, and software analysis tools. Prerequisites: BBSC majors only and department consent required. (1-0) Y

**AUD 6216** Audiologic Rehabilitation for Adults (2 semester credit hours) Evaluation and remediation of impairment, limitations, and restrictions associated with hearing loss. Emphasis on counseling, assistive technology, coping skills, communication strategies, auditory training, advocacy for adults with hearing loss, and community resources. Prerequisites: BBSC majors only and department consent required. (2-0) Y

**AUD 6303** Hearing Science (3 semester credit hours) Introduction to the physics of sound, cochlear mechanics, theories of auditory sensation, and perception. Prerequisites: BBSC majors only and department consent required. (3-0) Y

**AUD 6305** Anatomy and Physiology of Audition (3 semester credit hours) Structure and function of the auditory system including external, middle, and inner ear, and central auditory mechanisms. Prerequisites: BBSC majors only and department consent required. (3-0) Y

**AUD 6306** Speech Science (3 semester credit hours) The physical properties of speech and the perceptual, cognitive and neural processes that intervene between the production and perception of speech in everyday speech communication. Prerequisites: BBSC majors only and department consent required. (3-0) Y

**AUD 6310** Advanced Clinical Audiology (3 semester credit hours) Instrumentation and calibration standards for audiology practice. The development, application and interpretation of standard and advanced diagnostic audiological procedures. Prerequisites: BBSC majors only and department consent required. Corequisite: **AUD 6v20**. (3-0) Y

**AUD 6311** Diagnostic Audiology (3 semester credit hours) Procedures for audiological diagnosis including behavioral and objective measures. Emphasis on administration, interpretation, and appropriate reporting of diagnostic audiological tests. Prerequisites: BBSC majors only and department consent required. Corequisite: **AUD 6v20**. (3-0) Y

**AUD 6318** Pediatric Audiology (3 semester credit hours) This course covers etiological, medical, developmental, and genetic considerations relevant to the pediatric population. Emphasis on current diagnostic options, interpretation, and appropriate reporting of results from infants, young, and older children, including those having hearing loss, developmental delays from cognitive deficits or physical exceptions. Prerequisites: BBSC majors only and department consent required. (3-0) Y

**AUD 6352** Medical Audiology (3 semester credit hours) Etiology and pathology of auditory/vestibular disorders and diagnostic and treatment procedures. Prerequisites: BBSC majors only and department consent required. (3-0) Y
**AUD 6V20** Laboratory Procedures in Audiology and Hearing Science (1-9 semester credit hours) Application in structured laboratories of principles taught in diagnostic audiology, rehabilitation audiology, hearing science, amplification, cochlear implant, vestibular and electrophysiology courses. May be repeated for credit. Prerequisites: BBSC majors only and department consent required. Corequisite: AUD 6310 or AUD 6311 or AUD 7321 or AUD 7324 or AUD 7327 or AUD 7253 or AUD 7351. (0-[1-9]) S

**AUD 7205** Auditory Pharmacology (2 semester credit hours) Ototoxicity and otoprotection. Focuses on adverse auditory or vestibular side effects of common pharmaceuticals; pharmacotherapeutic benefits of drugs used to treat hearing loss, tinnitus, or balance disorders; and potential protection of auditory function via investigational drug agents. Prerequisites: BBSC majors only and department consent required. (2-0) Y

**AUD 7220** Tinnitus (2 semester credit hours) The goal of this course is to introduce students to the history, assessment, treatment, research, and multidisciplinary management of tinnitus, a phantom auditory perception. The course covers peripheral and neural models of tinnitus and the relationship between tinnitus and hearing loss as well as other auditory phenomena including abnormal loudness tolerance. Prerequisites: BBSC majors only and department consent required. (2-0) Y

**AUD 7228** Hearing Loss Prevention (2 semester credit hours) Identification of noise-induced damage to the inner ear and prevention of noise-induced hearing disorders. Focuses on hearing loss prevention in adults with occupational noise exposure. Includes hearing loss prevention in musicians, Service members, children, and others; also includes hearing protection and noise standards. Prerequisites: BBSC majors only and department consent required. (2-0) Y

**AUD 7240** Auditory Processing Disorders and other Advanced Topics in Audiology (2 semester credit hours) Lectures taught by different faculty members. Examples are: auditory processing disorders, vestibular case studies, implantable hearing devices, wireless technology, coding and reimbursement, and unilateral hearing loss. Prerequisite: BBSC majors only. (2-0) Y

**AUD 7253** Clinical Electrophysiology (2 semester credit hours) Evoked and event-related potentials including recording techniques, neurophysiological mechanisms, and applications to clinical populations. Prerequisites: BBSC majors only and department consent required. Corequisite: AUD 6V20. (2-0) Y

**AUD 7280** Doctoral Practicum in Audiology (2 semester credit hours) Supervised doctoral level experience in assessment and habilitation/rehabilitation of hearing impairment across the lifespan and scope of practice in audiology. Pass/Fail only. May be repeated for credit. Prerequisites: BBSC majors only and instructor consent required. (2-0) S

**AUD 7282** Issues in Mentoring and Counseling (2 semester credit hours) This course focuses on topics in patient counseling and professional mentoring. Counselors and mentors across various disciplines will discuss the importance of effective communication and conflict resolution as it relates to key issues in dynamics between practitioners and patients, family members, and in the workplace. Prerequisites: BBSC majors only and department consent required. (2-0) Y

**AUD 7310** Professional Issues in Audiology (3 semester credit hours) Ethics and professional issues in various practice settings, including multicultural considerations, licensure, certification, outcome measures, liability, malpractice, and practice management. Department consent required. Prerequisite: BBSC majors only. (3-0) Y
**AUD 7321** Theories of Amplification (3 semester credit hours) The effect of sensory hearing loss on sound awareness and speech perception. Advanced study of digital technology in amplification systems including compression, noise reduction, signal-to-noise ratio enhancement, feedback suppression, frequency lowering technology and speech enhancement strategies. Prerequisites: BBSC majors only and department consent required. Corequisite: **AUD 6v20**. (3-0) Y

**AUD 7324** (ACN 7324 and COMD 7324) Seminar in Cochlear Implants and Technology for Persons Who are Deaf or Hard of Hearing (3 semester credit hours) This course provides an overview of prosthetic alternatives to conventional amplification for individuals with significant hearing loss. Topics include candidacy determination, technology, basics of device programming and troubleshooting, awareness of controversial areas related to cochlear implantation, and future trends in cochlear implantation. Further, this course will cover current issues in the medical, audiological, speech/language, quality of life, and educational management of children and adults with cochlear implants. This course also has a complementary laboratory course. Prerequisites: BBSC majors only and department consent required. (3-0) Y

**AUD 7325** Intensive Auditory Rehabilitation for Adult Hearing Loss (3 semester credit hours) Intensive experience with comprehensive rehabilitation of adults and/or teens with a focus on research and clinical techniques to facilitate communication in employment, social, and home situations through the use of communication strategies and remote microphone assistive technology. Prerequisites: BBSC majors only and department consent required. (3-0) Y

**AUD 7326** Aural Habilitation of Children with Hearing Impairments (3 semester credit hours) Issues in selection and fitting of amplification and remote microphone systems for children, rationale and methods of auditory training, optimizing the auditory environment, communication options, and family-centered intervention. Prerequisites: BBSC majors only and department consent required. (3-0) Y

**AUD 7327** Evaluation and Fitting of Amplification Systems (3 semester credit hours) Clinical management of the hearing aid patient and hearing aid selection. Post-fitting verification and verification of amplification systems. Advanced validation of remote microphones for children and adults. Examination of new developments in hearing aid technologies, and pre and post fitting counseling issues. Prerequisites: BBSC majors only and department consent required. Corequisite: **AUD 6v20**. (3-0) Y

**AUD 7330** Advanced Diagnostic Assessment (3 semester credit hours) This course is designed to offer an in-depth approach to the comprehensive evaluation of the dizzy patient. Subject matter includes review of the anatomy and physiology of the peripheral and central vestibular and how it relates to site of lesion diagnosis, and in-depth interpretation and analysis of ENG/VNG, Electrocochleography, Auditory Brainstem Response testing, rotational vestibular assessment, VHIT, OVEMP, CVEMP, and CDP testing using real case scenarios and linking results to diagnosis of the most common audio vestibular disorders. Department consent required. (3-0) Y

**AUD 7338** Research in Audiology (3 semester credit hours) Review of the principles of research, including the relationship between working hypotheses, methodology, data analysis, and outcomes to prepare individuals to become a critical consumer of research. Scientific writing process including journal publication, scientific posters, and writing style. Prerequisites: BBSC majors only and department consent required. (3-0) Y

**AUD 7351** Physiologic Assessment of Vestibular System (3 semester credit hours) Anatomy, physiology and pathophysiology of the vestibular, oculomotor and related systems used for maintaining equilibrium and balance. Disorders affecting balance. Procedures used for diagnostic assessment of the vestibular system.
including Electronystagmography/Videonystagmography, Video Head Impulse Test, rotational chair, platform posturography and vestibular evoked myogenic potentials. Medical and non-medical treatments for balance disorders. Prerequisites: BBSC majors only and department consent required. Corequisite: AUD 6V20. (3-0) Y

**AUD 7360** Planning Audiology Services in Developing Countries (3 semester credit hours) This course is created with a required on-site practicum in under-served and developing country as well as providing a structured didactic experience for students. Students will get a first hand overview of the specific challenges involved in providing hearing health care services in developing countries in the context of the country and culture. Students will be supervised and demonstrate required clinical knowledge and skill to interact with patients and professionals during the experience as well as those outlined in Clinical Standards and Implementation Guidelines. May be repeated for credit (6 semester credit hours maximum). Instructor Consent Required. (3-0) Y

**AUD 7V73** Seminar in Audiology and Hearing Science (1-6 semester credit hours) Current topics in audiology and hearing science. May be repeated for credit as topics vary. Prerequisites: BBSC majors only and department consent required. ([1-6]-0) T

**AUD 7V82** Special Topics in Hearing Science and Audiology (1-9 semester credit hours) Selected topics and current research in hearing science and audiology. Pass/Fail only. May be repeated for credit as topics vary. Prerequisites: BBSC majors only and department consent required. ([1-9]-0) Y

**AUD 7V91** Methods in Audiology and Hearing Science (1-6 semester credit hours) Issues related to methods of assessment and intervention in audiology and hearing science. May be repeated for credit as topics vary. Prerequisites: BBSC majors only and department consent required. ([1-6]-0) Y

**AUD 7V98** Directed Study in Audiology and Hearing Science (1-9 semester credit hours) Individualized program of study which may include reading, research implementation of clinical strategies, and/or other designated activities. Pass/Fail only. May be repeated for credit as topics vary. Prerequisites: BBSC majors only and instructor consent required. ([1-9]-0) S

**AUD 8V80** Individual Research in Audiology (1-9 semester credit hours) Independent research project to fulfill the Doctor of Audiology research requirement. May be repeated for credit. Prerequisites: BBSC majors only and instructor consent required. ([1-9]-0) S

**AUD 8V97** Doctoral Internship in Audiology (1-9 semester credit hours) Intensive, full-time, clinical audiology practicum in a work setting that provides exposure to a diverse clinical population and a wide breadth of audiologic services. Completed during the fourth year of the AuD Program. Pass/Fail only. May be repeated for credit. Prerequisites: BBSC majors only and instructor consent required. ([1-9]-0) S