Communication Sciences and Disorders

Seikel, Interim KDHS Associate Vice President - Pocatello
Kangas, Dean, College of Rehabilitation and Communication Sciences
Chair and Associate Professor: Sanford
Associate Chair and Clinical Professor: Loftin
Professor: Kangas
Associate Professors: Bargen, Blaiser, Brockett, Hudock, Ogiela, Ramsdell-Hudok
Assistant Professors: Brock, Cummings, Scharp
Clinical Professor: Gazi, Holst, Whitaker
Clinical Associate Professor: Hardy, W. Morgan, E. Schniedewind (Morgan), S. Smith
Clinical Assistant Professors: Ament, Andrew, Cheadle, Hansen, C. Miller, K. Miller, Radford, C. Smith, Stubbs, Van Donsel, Vieira, Woods
Emeriti: Bain, Johnson, Schow, Seikel, Smedley, Wallber, Weston, Willer

Accreditation
The Doctor of Audiology (Au.D.) and the Master of Science in Speech-Language Pathology (M.S.) are accredited by the Council on Academic Accreditation (CAA) in Audiology and Speech-Language Pathology of the American Speech-Language-Hearing Association (ASHA), 2200 Research Boulevard, #310, Rockville, MD 20850, 800-498-2071 or 301-296-5700 (http://www.asha.org/academic/).

Degree Programs
Degree programs offered by the Department of Communication Sciences and Disorders include:

- Doctor of Philosophy in Rehabilitation and Communication Sciences (Ph.D.)
- Doctor of Audiology (Au.D.)
- Master of Science in Speech-Language Pathology (M.S.)

Doctor of Philosophy in Rehabilitation and Communication Sciences
The Doctor of Philosophy (Ph.D.) in Rehabilitation and Communication Sciences program provides students with education and research training to develop their area of expertise to become independent scholars, educators, administrators, or leaders within their disciplines. Students will be expected to complete academic core, research core, specialized program, dissertation and other program requirements for degree completion. The program is offered through either traditional (on-campus) or non-traditional (online) models with full-time or part-time options, however certain limitations may apply.

Goals
College of Rehabilitation and Communication Sciences (CRCS) Ph.D. program graduates will have:

- successfully completed the 1) core curriculum in the program, 2) comprehensive examinations, and 3) submitted a grant proposal for funding consideration
- participated in cross-disciplinary and interprofessional education and pedagogy, which may include clinical, research, or teaching experiences outside of their professions
- demonstrated proficiency in face-to-face and online teaching (e.g., lecture, discussion, laboratory, lesson planning, testing, and grading) and use of innovative strategies for access (e.g., video interaction, online teaching, independent study)
- demonstrated the ability to plan, initiate, conduct, analyze, and disseminate quality research within their discipline

Admission requirements
Applicants seeking admission consideration for the Doctor of Philosophy in the Rehabilitation and Communication Sciences program at ISU must apply to and meet all criteria for admission to the ISU Graduate School by February 15 of the calendar year in which the applicant wishes to start the Fall cohort. In addition, the following criteria must be met:

- Cumulative grade point average (GPA) of 3.5 or greater over the last 60+/- semester credits (90+ quarter credits)
- Obtain a score of 40th percentile or greater on either the verbal or quantitative sections of the GRE with no less than the 20th percentile on either the verbal or quantitative
- Submit three recent letters of professional recommendation
- Submit an example of scholarly writing (e.g., thesis, publication, term-paper, etc)
- Submit a formal statement of intent (2000 words or less) summarizing areas of research interest, related professional experiences, and the reasons for applying to the Ph.D. program
- Submit written consent from a CRCS academic faculty major advisor agreeing to mentor the applicant if they are accepted to the program

International Students
International students whose native language is not English must achieve at least the 50th percentile on the Verbal section of the GRE. Applicants whose first language is not English need to meet the following TOEFL requirements for Classified admission:

- Internet -based test (iBT): a total score of 80 with a score of at least 20 on each Section (graduate assistants who teach courses must score 23 or above on the Speaking Section) on the iBT; or
- Computer-based test: a total score of 213 with a score of at least 21 on Section 1 (Listening Comprehension) on the computer test; or
- Paper-based test: a total score of 550 with a score of at least 55 on Section 1 (Listening Comprehension) on the paper test or a score of 84 on the MTELP, or a score of 6 on the IELTS.

*Some exceptions may be made pending approval of the CRCS Ph.D. studies committee and Ph.D. program co-coordinators.

All applicants are reviewed on a competitive case-by-case basis. Qualified applicants may be invited for an interview with members of the CRCS Ph.D. studies committee. Meeting entry level requirements for admission does not
guarantee a seat in the program. Admission into the program is separate from an offer of funding.

**Preferenceal consideration** will be given to those applicants already holding graduate degrees / clinical certification and demonstrated academic potential in Audiology, Speech-Language Pathology, Occupational Therapy, Physical Therapy, or other related fields. Others may apply and will be considered for admission based on merit and potential for success.

**General Requirements**

The Doctor of Philosophy in Rehabilitation and Communication Sciences requires a minimum of 60 credits post graduate degree or equivalent across: Academic Core, Research Core, Specialized Program, and Dissertation areas. Prior to starting the program the applicant must have completed a bachelor’s degree; completion of a graduate degree is also preferred. If a student is accepted to and starts the program without having completed a graduate degree, or if he/she is currently enrolled in a graduate program, the student will be required to complete graduate-level clinical-entry didactic coursework within the discipline during the program (typically an additional 30 or more credit-hours). These students may or may not receive specific clinical education training along with clinical placements during their program, but it may be an option if desired and if approved by the student’s advisory committee, CRCS Ph.D. studies committee, and Ph.D. program co-coordinators.

**All students and candidates must adhere to:**

- ISU / ISU Graduate School policies, procedures, and requirements
- CRCS Ph.D. program policies, procedures, and requirements

*Failure to adhere to the policies, procedures, or requirements, poor performance / progress, or unprofessional / unethical conduct may result in probationary actions or immediate dismissal from the program.

**Special Requirement (may not apply to all students)**

Thesis Equivalent (1-6 credits of CRCS 7050): Students who did not complete a graduate thesis (or comparable research project) must complete a supervised research project prior to starting their research practicum. The project will follow ISU Graduate School requirements, policies, and procedures with the exception of not having to submit the final document to the graduate school for approval.

**Program Requirements**

- The student / candidate will have a major advisor and advisory committee as defined in the CRCS Ph.D. studies manual. Mutual consent from both the student / candidate and a major advisor must be obtained and maintained throughout the program of study. Following the student’s self-evaluation the major advisor and advisory committee will initially be responsible for monitoring and evaluating annual performance and progress. Student progress will also be evaluated by the CRCS Ph.D. studies committee and CRCS Ph.D. program co-coordinators.

**Curriculum Requirements:** The program of study consists of four core elements: Academic Core, Research Core, Specialized Program, and Dissertation. Students will work with their major advisor and their advisory committee to develop a program of study, which must be approved by the CRCS Ph.D. studies committee and CRCS Ph.D. program co-coordinators. Programs of study are individualized per student, therefore the courses listed below provide a sampling of potential options. Changes to the program of study, major advisor, or advisory committee members may occur and will be handled by the CRCS petitions process as defined in the CRCS Ph.D. studies manual.

- Academic Core (12 credits): Academic core is focused on enhancing the student’s understanding of the related professions, interprofessionalism, and pedagogical theory and application.

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CRCS 8001</td>
<td>Overview of Rehabilitation Disciplines</td>
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<tr>
<td>HCA 5520</td>
<td>The Business of Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>CRCS 8010</td>
<td>Mentored Teaching Practicum</td>
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<tr>
<td>Select 2 of the following or related coursework:</td>
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<tr>
<td>EDUC 6602</td>
<td>Theories of Learning</td>
<td>3</td>
</tr>
<tr>
<td>EDLH 7732</td>
<td>College and University Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>EDLH 7734</td>
<td>Issues and Trends in Higher Education</td>
<td>3</td>
</tr>
<tr>
<td>DENT 6605</td>
<td>Program Development and Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>DENT 6618</td>
<td>Leadership Strategies to Improve Health Care</td>
<td>3</td>
</tr>
<tr>
<td>DENT 6620</td>
<td>Advanced Educational Theory and Methods</td>
<td>3</td>
</tr>
</tbody>
</table>
| *Research Core (15 credits): Research core facilitates the student’s understanding of statistics, statistical procedures, research design, scholarship, scientific dissemination, and grant writing through theoretical understanding and application of such procedures. Students are required to take a repeatable CRCS 8020, Doctoral Colloquium (1cr) each academic semester they are enrolled in the program.**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CRCS 8020</td>
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<td>Select 3 of the following (in sequence):</td>
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<tr>
<td>MATH 5557</td>
<td>Applied Regression Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MATH 5558</td>
<td>Experimental Design</td>
<td>3</td>
</tr>
<tr>
<td>MATH 5559</td>
<td>Applied Multivariate Analysis</td>
<td>3</td>
</tr>
<tr>
<td>NURS 8813</td>
<td>Qualitative Inquiry and Analysis</td>
<td>3</td>
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<tr>
<td>NURS 8830</td>
<td>Current Trends in Research Design and Methods</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 6627</td>
<td>Statistics and Research Design I</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 6632</td>
<td>Statistics and Research Design II</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 6637</td>
<td>Multivariate Statistics and Research Design</td>
<td>3</td>
</tr>
<tr>
<td>Select 1 of the following:</td>
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<tr>
<td>CSD 6600</td>
<td>Principles of Research in Communication Disorders</td>
<td>3</td>
</tr>
<tr>
<td>DENT 6646</td>
<td>Health Research</td>
<td>3</td>
</tr>
<tr>
<td>NURS 7735</td>
<td>Statistical Analysis in Evidence Based Practice</td>
<td>3</td>
</tr>
<tr>
<td>NURS 8830</td>
<td>Current Trends in Research Design and Methods</td>
<td>3</td>
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<tr>
<td>PPRA 5518</td>
<td>Grantwriting</td>
<td>4</td>
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<tr>
<td>Select 1 of the following:</td>
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<tr>
<td>NURS 8825</td>
<td>Research and Grant Writing</td>
<td>3</td>
</tr>
<tr>
<td>NURS 8826</td>
<td>Approaches to Scholarly Writing</td>
<td>2</td>
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<tr>
<td>PSCI 6603</td>
<td>Scientific Communication</td>
<td>2</td>
</tr>
<tr>
<td>POLS 5557</td>
<td>Grantwriting</td>
<td>3</td>
</tr>
</tbody>
</table>

- Specialized Program (15 credits): Specialized program develops the student’s area of expertise and scholarship through coursework, independent studies, directed student learning, and guided research. At least 6 credits of basic or applied sciences outside of the CRCS
For admission to the Doctor of Audiology program, the applicant must:

1. Have an earned baccalaureate degree with a major in Communication Sciences and Disorders, or a baccalaureate degree in any major with equivalent post-baccalaureate coursework in Communication Sciences and Disorders.

2. Possess a 3.0 or higher GPA. The method of calculating an Admission GPA is based on the last 60± semester undergraduate credits (90± quarter credits) for coursework taken during the last two years of undergraduate training. Post-baccalaureate coursework in Communication Sciences and Disorders will be considered in computing GPA.

3. Obtain score of 40th percentile or better on at least one area of the GRE.

4. Apply through Communication Sciences and Disorders Centralized Application Service at: https://csdcas.liaisoncas.com/applicant-ux/#/login.

5. Submit three letters of recommendation.


7. Apply to, and meet all criteria for, admission to Graduate School.

**International Students**

International students whose native language is not English must achieve at least the 50th percentile on the Verbal section of the GRE. Applicants whose first language is not English need to meet the following TOEFL requirements for Classified admission:

1. Internet-based test (iBT): a total score of 80 with a score of at least 20 on each Section (graduate assistants who teach courses must score 23 or above on the Speaking Section) on the iBT; or

2. Computer-based test: a total score of 213 with a score of at least 21 on Section 1 (Listening Comprehension) on the computer test; or

3. Paper-based test: a total score of 550 with a score of at least 55 on Section 1 (Listening Comprehension) on the paper test or a score of 84 on the MTELP, or a score of 6 on the IELTS. Once admitted, non-native English-speaking students must also receive a passing score on a test of spoken English to participate in clinic.

*We do not accept IEI nor ELS in lieu of TOEFL/IELTS.

**Program Capacity**

An average of 32 students are in the program at any time. The number of seats available for each new cohort will vary. On average eight (8) students are admitted per year. Classes begin in the Fall Semester of each year. Meeting entry-level requirements for admission does not guarantee a seat in the program.

**Curriculum**

The curriculum is four years in duration, and includes one year (fourth year) of full-time clinical practicum. There are eight regular (fall and spring) semesters and three summer semesters. For the third year, students will be required to relocate to the ISU Meridian campus to continue their academic and clinical instruction in a robust audiology community. Students will assume the financial, housing, and logistical responsibilities of the relocation.

**Doctor of Audiology (Au.D.) (Regular 4 year)**

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CSD 5517</td>
<td>Interdisciplinary Evaluation Team</td>
<td>1</td>
</tr>
<tr>
<td>CSD 5570</td>
<td>Advanced Topics in Educational Audiology</td>
<td>3</td>
</tr>
<tr>
<td>CSD 5580</td>
<td>Genetics for the Health Care Professionals</td>
<td>2</td>
</tr>
<tr>
<td>CSD 6600</td>
<td>Principles of Research in Communication Disorders</td>
<td>3</td>
</tr>
<tr>
<td>CSD 6603</td>
<td>Clinical Practicum Audiology</td>
<td>9</td>
</tr>
<tr>
<td>CSD 6603L</td>
<td>Clinical Practicum Laboratory</td>
<td>0</td>
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<tr>
<td>CSD 6605</td>
<td>Externship in Audiology</td>
<td>4</td>
</tr>
<tr>
<td>CSD 6611</td>
<td>Advanced Auditory Assessment and Speech Audiometry</td>
<td>4</td>
</tr>
<tr>
<td>CSD 6621</td>
<td>Aud Rehab and Amplification I</td>
<td>3</td>
</tr>
<tr>
<td>CSD 6623</td>
<td>Pediatric Audiology</td>
<td>3</td>
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</tbody>
</table>
students. Students may be dismissed for failure to make satisfactory progress in clinical practicum.

**Master of Science in Speech-Language Pathology (M.S.)**

**Admission Requirements**

For admission to the M.S. degree program in Speech-Language Pathology the applicant must:

1. Have an earned baccalaureate degree with a major in communication sciences and disorders, or a baccalaureate degree in any major with equivalent post-baccalaureate coursework in communication sciences and disorders.
2. Possess a 3.0 or higher GPA. The method of calculating an Admission GPA is based on the last 60± semester undergraduate credits (90± quarter credits) for coursework taken during the last two years of undergraduate training. Post-baccalaureate coursework in communication sciences and disorders will be considered in computing GPA.
3. Obtain score of 40th Percentile or better on at least one area of the GRE.
5. Submit three letters of recommendation.
7. Submit resume.
8. Apply to and meet all criteria for admission to Graduate School https://www.isu.edu/apply/graduate/.

**International Students**

International students whose native language is not English must achieve at least the 50th percentile on the Verbal section of the GRE. Applicants whose first language is not English need to meet the following TOEFL requirements for Classified admission:

1. Internet-based test (iBT): a total score of 80 with a score of at least 20 on each section (graduate assistants who teach courses must score 23 or above on the Speaking Section) on the iBT; or
2. Computer-based test: a total score of 213 with a score of at least 21 on Section 1 (Listening Comprehension) on the computer test; or
3. Paper-based test: a total score of 550 with a score of at least 55 on Section 1 (Listening Comprehension) on the paper test or a score of 84 on the MTEL, or a score of 6 on the IELTS. Once admitted, non-native English-speaking students must also receive a passing score on a test of spoken English to participate in clinic.

*We do not accept IELT nor ELS in lieu of TOEFL/IELTS.*

**Master of Science in Speech-Language Pathology (M.S.)**

**Required Courses**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>CSD 6600</td>
<td>Principles of Research in Communication Disorders</td>
<td>3</td>
</tr>
<tr>
<td>CSD 6602 &amp; CSD 6604</td>
<td>Clinical Practicum Speech-Language and Off Campus Practicum</td>
<td>12</td>
</tr>
<tr>
<td>CSD 6606</td>
<td>Externship in Speech Language Pathology</td>
<td>8</td>
</tr>
<tr>
<td>CSD 6614</td>
<td>School Age Language Development and Disorders</td>
<td>3</td>
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</tbody>
</table>

**General Requirements**

Students receiving the degree of Doctorate of Audiology must have satisfactorily completed all courses in the curriculum and passed all clinical practicum assignments. In addition, in the fall semester of the third year, the student must pass the written comprehensive examination, and then in the spring, an internal departmental oral comprehensive examination that includes defense of the doctoral project. Students must take and pass the national Praxis prior to participating in clinic.

Additionally, graduate students deemed by the faculty not to have made satisfactory progress in the acquisition of clinical skills may be required to enroll for further credits in clinical practicum in addition to the minimum required of all
An adequate undergraduate background is assumed for entry to the graduate curriculum in Speech-Language Pathology. If deficiencies are found, such as lack of a basic course, the student may be required to make up the course. Note also that undergraduate or graduate courses in 1) statistics 2) psychology, sociology, or anthropology 3) physics or chemistry and 4) biology are required if not previously taken in an undergraduate program, as is Interdisciplinary Evaluation Team.

Students in the Graduate Program in Speech-Language Pathology must have the following ISU courses or their equivalents from another institution, or provide evidence from course syllabi that the basic information was covered in their undergraduate program. Certain of these courses may be taken during the graduate program.

## Courses

### General Requirements

Students must pass written and oral comprehensive examinations. For the Master of Science in Speech-Language Pathology, the written exam may be fulfilled by a portfolio and either a capstone or a thesis option. Examinations for students choosing the portfolio and capstone track are conducted internally through the department, while students choosing to do a portfolio and a thesis will require a Graduate Faculty Representative and will follow ISU Graduate School policies for thesis and dissertation.

According to the university regulations, no student may be granted a graduate degree who does not have a 3.0 grade point average for courses listed on the program of study upon completion of all academic work. In addition, the Department of Communication Sciences & Disorders will terminate the graduate program of any student who has received grades of C+ or lower, in two or more departmental courses (including clinical practicum), or if the cumulative GPA falls below 2.7 in the first year of study and 3.0 by the completion of graduate studies. If a student’s graduate education is terminated for reasons of poor academic performance, he/she may reapply for admission no sooner than one full semester following the semester of dismissal.

Students with inadequate backgrounds in speech-pathology and audiology may be required to take up to one year of undergraduate course work in addition to the above courses. In addition to the required graduate courses, students may have to take other courses in the department and related areas such as psychology and statistics. In addition to taking clinical practicum (CSD 6602, CSD 6603, or CSD 6604) in the department, all graduate students must complete a minimum of an eight-week, full-time externship in some professional program or agency. Exceptions may be made depending on the student’s background. Graduate students deemed by the faculty not to have made satisfactory progress in the acquisition of clinical skills may be required to enroll for further credits in clinical practicum in addition to the minimum required of all students. Students may be dismissed for failure to make satisfactory progress in clinical practicum.

### Courses

#### CSD 5517 Interdisciplinary Evaluation Team: 1 semester hour.

#### CSD 5520 Clinical Processes Adult: 3 semester hours.
Diagnostic principles, procedures, tests and clinical examination in the evaluation of speech, language and hearing disorders. Covers norms, reliability and validity. PREREQ: PSYC 4445, CSD 3315, and Statistics and/or approval of instructor.

#### CSD 5540 Special Topics Workshop: 1-3 semester hours.
Presentation of professionally related topics in workshop format. Meets for a minimum of 16 contact hours per credit with appropriate outside assignments, readings, or papers. May be repeated for up to 6 credits. Graded S/U.

#### CSD 5560 Educational Audiology: 3 semester hours.
Overview of school-based audiology services and the educational audiology model of service provision including working within the public school system, legal issues, and options for providing comprehensive services to children with hearing loss and their families.
CSD 5570 Advanced Topics in Educational Audiology: 3 semester hours.
An in-depth study and application of audiological services for school age students, evaluation of laws pertaining to public school services, exploration of working with families and educational personnel, verification and validation of hearing assistive technology, and creation of evaluation protocols.

CSD 5580 Genetics for the Health Care Professionals: 2 semester hours.
An in-depth interdisciplinary review of the impact of genetics on patients and patient care and the biological, social, ethical, and legal issues surrounding genetics and genomics. Specific, evaluated graduate-level activities and/or performances are identified in the course syllabus. Equivalent to DHS 5580 and NURS 5580.

CSD 5582 Independent Study: 1-4 semester hours.
Study of problems selected by students and faculty. May be repeated for up to 8 credits.

CSD 5591 Seminar: 1-4 semester hours.
Reading, preparation, and discussion of reports and projects in all areas of speech and hearing science, speech pathology and audiology. May be repeated for up to 12 credits.

CSD 5598P Professional Education Development: 3 semester hours.
New methods and opportunities to enhance and supplement skills. Subject to the approval of the Dean of the student's college, a maximum of eight credits earned in workshops may be applied toward a degree; students taking the courses only for personal development may choose the 0-credit option; those seeking professional development must choose a for-credit option.

CSD 5599 Experimental Course: 1-6 semester hours.
This is an experimental course. The course title and number of credits are noted by course section and announced in the class schedule by the scheduling department. Experimental courses may be offered no more than two times. May be repeated.

CSD 6600 Principles of Research in Communication Disorders: 3 semester hours.
Methodology including quantitative and qualitative approaches to research and use of evidence-based practice. Use of informational resources to develop a research proposal. PREREQ: Statistics or permission of instructor.

CSD 6602 Clinical Practicum Speech-Language: 1-4 semester hours.
Students, under supervision, gain experience in the diagnosing, staffing, programming, and counseling of cases with speech and language disorders. May be repeated up to 16 credits. PREREQ: Approval of Clinic Director.

CSD 6602L Clinical Practicum Laboratory: 0 semester hours.
Weekly staffing, grand rounds discussion, and professional presentations of new trends in speech pathology.

CSD 6603 Clinical Practicum Audiology: 1-4 semester hours.
Students gain experience in diagnosing, programming, and counseling cases with hearing disorders, and implementing rehabilitation programs for persons with hearing losses. May be repeated for up to 13 credits. PREREQ: Approval of advisor and Audiology Clinic Coordinator. COREQ: CSD 6603L.

CSD 6603L Clinical Practicum Laboratory: 0 semester hours.
Weekly staffing, grand rounds discussion, and professional presentations of new trends in audiology. COREQ: CSD 6603.

CSD 6604 Off Campus Practicum: 1-4 semester hours.
Designed to provide clinical experience under supervision of speech-language pathologist within placement setting. Placements include private clinics, hospitals, residential care facilities, developmental centers, and schools. May be repeated for up to 16 credits. Graded S/U. PREREQ: Approval of Clinic Director.

CSD 6605 Externship in Audiology: 1-8 semester hours.
Eight week off-campus placement that can be split between two summers. Final approval is the responsibility of the clinic director. Each student should obtain a minimum of 100 clock hours of clinical experience per eight week externship. May be repeated. Graded S/U. COREQ: CSD 7705L. PREREQ: Clinic Director Approval.

CSD 6606 Externship in Speech Language Pathology: 1-9 semester hours.
Designed to give Speech-Language Pathology students full-time practical experience in a professional setting, i.e., schools, hospitals, clinics, and private practices. May be repeated for up to 18 credits. Graded S/U. PREREQ: Completion of academic program.

CSD 6611 Advanced Auditory Assessment and Speech Audiology: 4 semester hours.
Thorough study in the historical and clinical aspects of fundamental audiological procedures such as pure-tone air- and bone-conduction testing, speech audiometry, and masking.

CSD 6614 School Age Language Development and Disorders: 3 semester hours.
Advanced study of language development and disorders in school-age children and youth. Methods of assessing later language disorders in educational settings. PREREQ: CSD 6620.

CSD 6616 Augmentative and Alternative Communication: 3 semester hours.
Functional approaches to enhancing communication for people with severe disabilities. Includes introduction to electronic communication devices, low technology strategies, empowering clients, and inclusive practices. PREREQ: CSD 6620.

CSD 6620 Early Language Development and Disorders: 3 semester hours.
Study of language development and disorders in children (0-5 years of age). Includes theories of development and disorders, assessment and intervention of child and environment. PREREQ: CSD 3330 and CSD 3335 and/or equivalent.

CSD 6621 Aud Rehab and Amplification I: 3 semester hours.
Introduction to practice of audiologic rehabilitative patient care with an emphasis on acoustic hearing aids. Basic instrument design, component, and coupling features of various wearable amplification devices will be included. Assessment of patient candidacy, fitting protocols, and outcome measures.

CSD 6622 Speech Sound Disorders: 3 semester hours.
Characteristics of children with speech sound disorders. Current approaches to assessment and theoretically-based treatment of speech sound errors, including multiculticular applications. PREREQ: CSD 3325 or permission of instructor.

CSD 6623 Pediatric Audiology: 3 semester hours.
Advanced study of hearing disorders and hearing test procedures in children. Topics include development of the auditory mechanism, auditory pathologies, developmental milestones, auditory testing, differential diagnosis, and management.

CSD 6624 Disorders of Swallowing: 3 semester hours.
Assessment and treatment of disorders associated with all stages of swallowing in adults and children. Includes oromotor, oral preparatory, oral, pharyngeal, and esophageal swallowing disorders.

CSD 6625 Advanced Issues in Language Disorders: 3 semester hours.
Critical issues in childhood language disorders including linguistic and cultural diversity, classroom-based strategies, and children with mental retardation, autism, learning disability and deafness. PREREQ: CSD 6614 or equivalent.

CSD 6626 Introduction to Balance Function Assessment: 1 semester hour.
Introduction to the assessment of the patient with dizziness and/or balance concerns. Emphasis will be on videonystagmography procedures, interpretation of findings, and communication to the referral source.
CSD 6629 Neuropathologies of Speech: 3 semester hours.
Examines etiologies, characteristics, assessment and treatment of dysarthria, apraxia, and right-hemisphere dysfunction. PREREQ: CSD 4405 or permission of instructor.

CSD 6630 Fluency Disorders in Children and Adults: 3 semester hours.
Advanced study of assessment and treatment for fluency disorders in adults and children. Includes theory, developmental issues, cluttering, and specific treatment for adults and children.

CSD 6631 Immittance/Special Assessment: 3 semester hours.
Study of immittance and other special audiological tests used in site of lesion (differential) diagnostic work ups. Background, rationale, administration, and interpretations of immittance and other special tests will be considered along with the concept of Clinical Decision Analysis (CDA).

CSD 6632 Craniofacial Anomalies: 2 semester hours.
Consideration of the speech-language pathologist's role in the habilitation of patients with craniofacial anomalies. Clefts of the lip and palate are discussed. Team approaches to assessment and management are presented.

CSD 6633 Introduction to Evoked Potential Audiometry: 3 semester hours.
Introduction to the study of evoked potential audiometry and otoacoustic emissions. Emphasis will be on the physiologic processes and instrumentation.

CSD 6634 Voice Disorders: 2 semester hours.

CSD 6636 Medical/School Practice in Speech Language Pathology: 3 semester hours.
Examines methods and practices specific to medical and school settings. Includes billing procedures, record keeping, referral procedures, ethics, treatment models related to settings, caseload management, Interdisciplinary Education program requirements, legal mandates, collaborative strategies, and inclusive practices. PREREQ: CSD 6614 or CSD 6639 or equivalent.

CSD 6639 Neurogenic Disorders of Language and Cognition: 3 semester hours.
Etiologies, characteristics, assessments, and treatment of aphasia, traumatic brain injury, and dementia.

CSD 6641 Aud Rehab and Amplification II: 3 semester hours.
Continued review of amplification technology focused on advanced signal processing, prescriptive fitting rationales, verification/validation methodologies, and programming software. Patient orientation, programming adjustments, and hearing aid repair will also be covered with experiential learning activities.

CSD 6643 Aural Rehab and Cochlear Implants: 3 semester hours.
Directed classroom instruction and clinical experience with implantable hearing technologies and with cochlear implants. Current hardware and software and approaches to assessment, fitting, and rehabilitation of implanted adults and children. Lab instruction on current manufacturer devices and software will also be covered in this course.

CSD 6644 Implantable Technologies: 1 semester hour.
Directed classroom instruction and clinical experience with Middle Ear Implants, Acoustic Implants, Bone Anchored Hearing Appliances, Auditory Brainstem Implants, and Vestibular Implants. Current candidacy requirements, assessment procedures, technology, surgery implications, fittings, and rehabilitation for children and adults. There will also be lab opportunities for Bone Anchored Hearing Aid Appliance software, candidacy, and fittings.

CSD 6645 Auditory Anatomy and Physiology: 2 semester hours.
Comprehensive treatment of the anatomy, physiology, and neuroanatomy of the auditory system from the outer ear to the auditory cortex.

CSD 6646 Central Auditory Processing: 2 semester hours.
This course will review the anatomical and neurophysiological aspects of auditory processing. The nature and causes of auditory processing disorders in children and adults will be discussed including disorder symptoms, assessment, treatment, clinical management and referrals. The impact of auditory processing disorders on language and learning will be discussed as well as differential diagnosis, the collaborative model, counseling, and advocacy.

CSD 6647 Auditory Physiology of Speech and Non Speech Signals: 2 semester hours.
Continuation of advanced study of the auditory system, including central pathways, auditory perception of speech and non-speech signals, and psychoacoustics, with focus on pitch and loudness phenomenon, masking, and binaural effect. PREREQ: CSD 6645.

CSD 6648 Professional Issues in Speech Language Pathology: 3 semester hours.
Advanced preparation for professional practice in speech-language pathology. Includes study of policies and practices in employment settings, service delivery models, ethics, counseling, and supervision. PREREQ: Two semesters of CSD 6602.

CSD 6650 Thesis: 1-4 semester hours.
Research project under supervision of academic faculty member. May be repeated. Graded S/U. PREREQ: Ability to deal with technical literature, proven writing ability; approval of advisor and instructor.

CSD 6651 Master's Paper: 1-3 semester hours.
Major paper or project synthesizing aspects of a specialized area of speech-language pathology, or audiology. A large component of the paper must reflect the student's own original thinking. May be repeated. Graded S/U.

CSD 6652 Auditory Language Learning: 3 semester hours.
This course examines the development of speech and hearing in children who are hard of hearing or deaf. Focus is placed on how children with hearing impairments differ in their learning of language compared to children with normal hearing. Language strategies for use by professionals serving deaf and hard of hearing children to promote language learning will also be discussed.

CSD 6670 Auditory Pathologies: 3 semester hours.
Study and discussion of a wide range of auditory and vestibular pathologies. Emphasis will be placed on the relationship between the pathology and the corresponding audiometric findings.

CSD 6673 Introduction to Audiology Clinical Processes: 1 semester hour.
The basic study of electronics, sounds, acoustics, instrumentation, calibration and hands-on activities using a wide variety of audiology equipment.

CSD 6675 Hearing Conservation in Noise: 2 semester hours.
Hearing conservation programs from historical and current model perspectives. Additionally, measurement of sound, OSHA and other applicable regulations, and the effects of noise on human hearing will be discussed.

CSD 6680 Counseling in Audiology: 2 semester hours.
Examination of the role of personal adjustment counseling in audiology. Students review counseling theory and the application of counseling techniques to patient interactions.

CSD 6691 Topical Seminar: 1-4 semester hours.
Reading and discussions involving subjects of concern. May be repeated up to 12 credits.

CSD 6692 Comprehensive Seminar: 1 semester hour.
A guided and systematic review of academic content, knowledge of audiology systems, testing, materials, diagnosis, and theories. This course concludes with the program's summative examination.
CSD 6693 Hearing Assistive Technology Systems: 1 semester hour.
An examination of Hearing Assistive Technology Systems (HATS) focused on
the different types, applications, fitting considerations, and verification/validation
measures. Students will gain hands-on experience with a variety of current
systems.

CSD 6699 Experimental Course: 1-6 semester hours.
This is an experimental course. The course title and number of credits are
noted by course section and announced in the class schedule by the scheduling
department. Experimental courses may be offered no more than three times. May
be repeated.

CSD 7705 Off Campus Clinical Practicum: 1-4 semester hours.
These externships, referred to as 3rd-year rotations, are for the two semesters of
the third year. Students will rotate through one experience every eight weeks or
two per semester. Affiliation agreements and placement decisions are arranged by
the externship coordinator. May be repeated. Graded S/U. COREQ: CSD 7705L.

CSD 7705L Off Campus Clinical Practicum Laboratory: 1 semester hour.
Staffing seminar conducted online with students in clinical experience settings.
May be repeated. Graded S/U. PREREQ: CSD 6603.

CSD 7710 Advanced Topics in Aud Rehab: 3 semester hours.
Advanced topics include rehabilitation issues targeting outcome measures and
efficacy. Topics of tinnitus and pharmacology along with professional issues will
be included. PREREQ: CSD 6621, CSD 6641, and CSD 6643.

CSD 7720 Audiology Practice Management and Dispensing: 3 semester hours.
Ethics and professional issues in various practice settings, including multicultural
considerations, licensure, certification, best practice, outcome measures,
hearing aid dispensing, liability, malpractice, marketing, and practice/business
management. PREREQ: CSD 6641 and CSD 6643.

CSD 7730 Advanced Auditory Evoked Potential Audiometry and Early
Identification: 3 semester hours.
Comprehensive discussion of advanced evoked potentials including test
protocols, measurement, and interpretation. Topics in early identification of
individuals with hearing loss will also be covered. PREREQ: CSD 6633.

CSD 7740 Advanced Vestibular and Balance Function Assessment: 3 semester
hours.
Advanced vestibular and balance function assessment including underlying
causes of balance disorders, rotary chair, computerized posturography, VEMP,
advances in VNG/ENG technology, and collaborative approaches to vestibular
rehabilitation. PREREQ: CSD 6633.

CSD 8805 Fourth Year Externship: 1-8 semester hours.
Full time placement designed to provide the student with a breadth and depth
of clinical experience equivalent to one year of full-time work (approximately
2,000 hours). Students must enroll for three semesters minimum. Students
are responsible for identifying potential sites and working with externship
coordinator to arrange affiliation agreements. Final approval is the responsibility
of the externship coordinator. May be repeated. Graded S/U. COREQ:
CSD 7705L.

CSD 8810 Clinical Project: 1-6 semester hours.
Clinically-based scholarly project completed under the supervision of the
audiology faculty. May be repeated for a total of 6 credits. Graded S/U.