

Science, Clinical Theory, and Multiculturalism In a Revamped Master of Arts Program

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I. Three Major Issues Underlying Curriculum Reform at the University of Illinois.

The decision to undertake a major reform of the Master of Arts curricula in the two professional areas of Speech-Language Pathology and Audiology and in the third area of Speech and Hearing Science was made in response to three major issues. The first dealt with the issue of a functional understanding of the basic scientific principles underlying human communication. We wanted to extend the teaching and learning of speech, language, and hearing sciences beyond that typically presented at undergraduate levels, and to enhance the theoretical presentations with applied knowledge, which include for example, the ability to capture and analyze physiologic and linguistic data for diagnostic, treatment efficacy, and basic and applied research purposes. Equally important was that graduate level experiences in human communication sciences precede graduate level academic coursework and clinical practicum in human communication disorders. The courses that address this first issue are shown in the Master of Arts curricula for Speech-Language Pathology (Appendix I) and Audiology (Appendix II). (The curriculum in Speech and Hearing Science will not be discussed here.) Students enrolled in these two curricula must satisfy department core requirements in three content areas, one of which bears on human communication sciences, namely Research Methodology. Other courses dealing with communication sciences are included under the: (1) required courses in speech-language pathology, which include the areas of speech science, language science, and neuroanatomy and neurophysiology of the speech mechanism (see Appendix I for specific courses), and (2) required courses in audiology, which includes the area of hearing science (see Appendix II).

The second issue dealt with the professional focus of the Master of Arts curricula in Speech-Language Pathology and in Audiology. We began by surveying employers of our Master's students and recent program graduates to identify the strengths and weaknesses shortly after their entry into the workforce. Agreement between employers and recent graduates was relatively high and indicated significant revisions and additions to Master's level course offerings and clinical practicum, particularly in Speech-Language Pathology. (Due to space and time limitation, the curriculum in Audiology will not be discussed further here). For example, new courses were developed in the areas of swallowing and motor speech disorders, major course revisions were accomplished in the areas of voice disorders, alaryngeal speech, and language disorders in preschool children, and clinical practicum was revised to reflect the addition of new theoretical perspectives and in some cases assessment techniques. In an attempt to better prepare Master's students for the specific career path of their choice, and in anticipation of more specialization in the practice of speech-language pathology, three course sequences were developed to reflect two concentration areas. The first is the Medical Settings Concentration Area, which emphasizes coursework in organic and motor-based speech disorders as well as in normal and disordered swallowing. This sequence does not presume that students will acquire state teacher certification. The second is the Comprehensive Concentration Area, which emphasizes coursework for students who wish to practice in schools or related settings and

recommends completing all requirements for teacher certification. Two course sequences are offered in the Comprehensive Concentration Area. The School Settings sequence emphasizes courses in language, phonology, fluency, and voice disorders. The Infant-Toddler sequence is a supplement to the School Settings sequence and responds to the need created by public laws that mandate early assessment and intervention services for children from birth to five years of age. In addition to some of the courses within the Schools Settings sequence, students are guided to elect course work addressing early intervention concerns. Appendix I provides more detail of the two concentration areas and the three course sequences.

The third major issue addressed by curriculum reform is that of multiculturalism in the discipline. This is a well known discipline issue because while the proportion of minority professionals providing service delivery has not increased over the decade, and in fact remains under represented at about six percent, the proportion of persons representing minority populations served by the discipline has risen dramatically. The approach here was twofold: first, to enhance the presentation of multicultural issues throughout the curriculum and clinical practicum, and second, to create a critical mass of minority students within the Master's program. In regard to the first, Appendix I shows that one of three content areas that constitutes the Departmental Required Core is the area of "Multicultural Issues in Speech, Language, and Hearing." All Master's students must elect one of the area's three courses (see Appendix I). While the long-term strategy is to immerse multiculturalism throughout the curriculum, we began by increasing the number of "specialized" course offerings in this area. In addition, the Department was awarded two USDOE training grants to address multicultural service delivery issues at the Master's and doctoral levels, which allowed us to provide services and train Master's students at practicum sites such as the Chicago Cabrini Green area. In regard to the second approach, that of increasing the minority student population in the student body, we targeted 20 percent minority enrollment in the Master's program. This proportion is in agreement with research that shows that it is necessary to develop a critical mass of at least 15-20 percent in order to provide an appropriate cultural context for students of under represented populations to thrive and succeed. Table I shows that we have achieved at 27 percent minority enrollment in the Master's program in FY99, a 20 percent enrollment in the Master's program for the past four years, and a tripling of the proportional representation of minority Master's students compared to the benchmark 1992 and 1993 academic years. Most importantly, the graduation rate for minority students is not distinct from other Master's students. As a result of this cultural shift, we have seen a passive, this is, non-targeted, and substantial increase in minority enrollments at the undergraduate and doctoral levels. For example, Table I also shows that the increase in minority student enrollment at the undergraduate level parallels that seen in the Master's program. Indeed, some of our most successful Master's students have graduated from our undergraduate program. Finally, Ph.D. minority enrollment has grown throughout this period and is at an all time high. Six of the eleven full-time Ph.D. students enrolled in the current semester represent people of color. While there is much to be said on the issue of minority representation in our academic institutions, I have the time to mention only one: There exist currently a relatively small but successful and diverse number of programs that have nurtured, grown, and sustained appropriate levels of under represented students. It is beyond the time that we create a mechanism to model these programs so that others can benefit from their experiences. I encourage the Council to consider such an initiative, perhaps in collaboration with the ASHA.

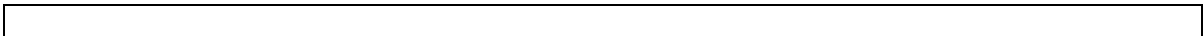


Table I								
Master's Program: Minority Representation as a Function of Total Student Enrollment								
	1992	1993	1994	1995	1996	1997	1998	1999
Total Students	63	60	53	58	48	50	51	52
Minority Students	5	4	4	4	9	9	11	14
Percent Minority Students	7.94%	6.67%	7.55%	6.90%	18.75%	18.00%	21.57%	26.92%

Table 1 (cont.)								
Undergraduate Program: Minority Representation as a Function of Total Student Enrollment								
	1992	1993	1994	1995	1996	1997	1998	1999
Total Students	86	119	160	180	160	165	172	148
Minority Students	4	6	18	19	19	28	24	24
Percent Minority Students	4.65%	5.04%	11.25%	10.56%	11.88%	16.97%	13.95%	16.22%

II. Results of Curriculum Reform.

The reformed Master of Arts curriculum was put in effect in the 1995 fall semester. Table II shows the trends in course enrollment by course sequence (e.g. School Setting, Infant-Toddler Setting, Medical Setting, and Non-Clinical) as a function of curriculum reform by comparing the courses completed by 1993 and 1994 (pre-reform) graduating students with the courses completed by 1997 and 1998 (post-reform) graduating students. Note first that since curriculum reform the majority of students elect the Comprehensive School Setting sequence, which most closely approximates the single clinical sequence in the pre-reform curriculum. A smaller but relatively equal number of students elect either the Comprehensive Infant-Toddler Setting or the Medical Setting sequence. It is important to note, however, that students are free to enroll in any course, regardless of the sequence that they elect, and many students augment the recommended sequences as a function of their individual interests. Second, note that while there are obvious and expected shifts in course enrollments in regard to required courses (Parts I and II of Table II), there are certain course enrollment trends that were less well predicted. Parts III and IV show that course enrollments have shifted in favor of language pathology course offerings compared to speech pathology. In every case, enrollments in the five language pathology courses shown in Part IV of Table II have either increased or remained stable. Enrollment trends in the speech

Table II
A Comparison of Course Enrollment in the Speech-Language Pathology Program
Pre (FY93 & 94) and Post (FY97 & 98) Master of Arts Curriculum Reform

	FY93 C - N/C ¹ (16 graduates)	FY94 C - N/C ¹ (18 graduates)	FY97 C:SS - C:IT - MS - N/C ² (19 graduates)	FY98 C:SS - C:IT - MS - N/C ² (18 graduates)
I. Department Core Courses				
I a. Research Methodology				
Quantitative Reasoning in Speech and Hearing Science (399)	0-0 (0%)	16-2 (100%)	18-1-0-0 (100%)	11-2-4-1 (100%)
I b. Multicultural Issues in Speech, Language and Hearing - select one				
Communication Disorders in Multicultural Populations (471)	7-0 (44%)	9-2 (62%)	5-0-0-0 (27%)	6-2-3-1 (56%)
Clinical Sociolinguistics (477)	N/A	N/A	10-1-0-0 (58%)	3-0-1-0 (23%)
Language Diversity in US: Differences versus Disorders (495)	N/A	N/A	0-0-0-0	0-0-0-0
I c. Research Seminar				
Proseminar in Speech and Hearing Science (496)	16-0 (100%)	16-2 (100%)	18-1-0-0 (100%)	11-2-4-1 (100%)
II. Required Courses in Speech-Language Pathology				
II a. Speech Science - select one				
Experimental Phonetics I: Speech Physiology (400)	0-0 (0%)	0-0 (0%)	17-1-0-0 (95%)	11-2-4-1 (100%)
Experimental Phonetics I: Speech Acoustics and Perception (401)*	0-0 (0%)	0-0 (0%)	0-0 (0%)	0-0 (0%)
*offered alternate spring semesters				
II b. Language Science				
Language Science (420)	N/A	N/A	14-1-0-0 (79%)	11-2-4-1 (100%)
II c. Neuroanatomy and Neurophysiology of Speech Mechanism (472)	1-0 (6%)	0-0 (0%)	18-1-0-0 (100%)	11-2-4-1 (100%)
III. Select List of Speech Pathology Courses (see Appendix I for complete list)				
Seminar in Stuttering (410)	16-0 (100%)	16-2 (100%)	12-0-0-0 (63%)	6-1-1-1 (50%)
Development and Disorders of Phonology and Articulation (411)	16-0 (100%)	16-2 (100%)	16-1-0-0 (90%)	8-2-4-1 (84%)
Voice Disorders and Alaryngeal Speech (413)	9-0 (57%)	15-2 (95%)	8-1-0-0 (47%)	1-0-3-0 (23%)
Orofacial Anomalies (414)	7-0 (44%)	1-0 (6%)	3-0-0-0 (16%)	2-0-3-1 (34%)
Normal and Disordered Swallowing (415)	15-0 (94%)	13-0 (82%)	18-1-0-0 (100%)	11-2-3-1 (95%)
Motor Speech Disorders (416)	2-0 (2%)	0-0 (0%)	12-1-0-0 (69%)	11-2-3-1 (95%)
IV. Select List of Language Pathology Courses (see Appendix I for complete list)				
Language Disorders in Preschool Children (430)	8-0 (50%)	9-0 (50%)	14-1-0-0 (79%)	11-2-3-1 (95%)
Language Disorders in School-Age Children (431)	9-0 (57%)	8-2 (56%)	5-0-0-0 (27%)	11-2-1-0 (78%)
Aphasia and Related Disorders (432)	16-0 (100%)	15-2 (95%)	18-1-0-0 (100%)	11-2-3-0 (89%)
Advanced Language Diagnostics (435)	8-0 (50%)	7-0 (39%)	7-0-0-0 (37%)	7-2-1-1 (62%)
Speech and Language Clinical Methods in the Schools (436)	12-0 (75%)	10-0 (56%)	15-1-0-0 (84%)	8-2-2-0 (67%)

¹C = Clinical
N/C = Non-clinical

²C:SS = Comprehensive:School Setting
C:IT = Comprehensive: Infant Toddler
MS = Medical Settings

pathology courses are different and are shown in Part III of Table II. Two courses, namely Normal and Disordered Swallowing, and Motor Speech Disorders, either increased enrollment or remain at high enrollment levels. Another course, Development and Disorders of Phonology and Articulation, also remains at high enrollment levels but the course content crosses the artificial language pathology-speech pathology boundary.

However, three courses, namely Stuttering, Voice Disorders and Alaryngeal Speech, and Orofacial Anomalies either show reduced enrollments or remain at relatively low enrollment levels. Finally, it should be pointed out that curriculum reform does not allow students to free select courses solely as a function of their professional interests. Rather, they continue to be constrained in their course selection in large measure by professional and state certification requirements, both of which affect clinical practicum requirements. Thus, while curriculum reform has introduced a level of flexibility that supports the student's professional interests it does not allow the typical Master's student to enroll in only those courses that she/he believes will support their distinct professional path.

III. Conclusions and Future Directions.

Finally, there are a number of aspects of the curriculum reform process that are worth mention. The first is developing and sustaining faculty motivation. Transformation at any level is uncomfortable for many and quite difficult for some. A number of faculty are sensitive to suggestions of change to course content, decisions about required versus elective courses, or even change to the order of courses within an existing curriculum. Curriculum reform, by necessity, requires significant faculty commitment and a significant investment of time; the curriculum reform reported here required two and a half years of focused work by faculty committee and department faculty-at-large. In hindsight, the time spent pursuing curriculum reform is both necessary and beneficial for it requires a faculty to decide what it hopes to be in the long term. We found this to be particularly true in regard to decisions that bear on multicultural aspects of the Master's curriculum. Second, curriculum reform will most likely involve an investment of additional resources. Two faculty were hired, albeit through timely attrition in one case, to enhance or in some cases create areas that were not represented in the pre-reform curriculum. Additional resources to meet expenses associated with dedicated infrastructure for new program initiatives are also likely. Finally, curriculum reform is a dynamic process that requires ongoing monitoring by a committed faculty and the support of the department for further revision when it becomes necessary. A particular challenge is to monitor the fit between theory and application; that is, to maintain a parallel focus in academic coursework with clinical practicum. We are considering novel approaches in this regard; for example, presenting certain courses in select modules of periods shorter than semester length that might enhance and solidify the theoretical and clinical experiences.

APPENDIX I

Master of Arts Curriculum in Speech-Language Pathology

All students must complete the departmental requirement of a minimum of 15 units of course work, including clinical practicum, as part of their degree program and to meet ASHA and Illinois State certification requirements. Up to two units that meet teacher certification requirements may be included in the 15 units mentioned above. In many cases students may find it either desirable or necessary to take additional course work. However, the department discourages students of auditing courses without registering for full credit. The program consists of three major parts:

1. All-departmental core courses
2. Required courses in audiology
3. Required courses in Speech-Language Pathology
4. Recommended Concentration Areas
5. Elective Courses

ALL-DEPARTMENTAL REQUIRED CORE COURSES

All Master of Arts students who wish to provide clinical services as speech-language pathologists or audiologists must satisfy the departmental core requirements in three content areas:

A. Research Methodology (1 unit)

Quantitative Reasoning in Speech and Hearing Science SPSHS 399

B. Multicultural Issues in Speech, Language, and Hearing (1 unit)

Select one course:

Communication Disorders in Multicultural Populations SPSHS 471

Clinical Sociolinguistics SPSHS 477

Language Diversity in US: Differences versus Disorders SPSHS 495

C. Research Seminar (0 unit)

Proseminar in Speech and Hearing Science SPSHS 496

AUDIOLOGY REQUIREMENTS

Every student majoring in Speech-Language Pathology is required to have at least 6 semester hours in Audiology. These may have been taken at the undergraduate level. At least 3 semester hours must be in "habilitative and rehabilitative procedures," a course in aural rehabilitation.

REQUIRED COURSES IN SPEECH-LANGUAGE PATHOLOGY

Students pursuing the MA degree in Speech-Language Pathology must take three additional core courses in basic speech and language sciences as specified below:

A. Speech Science (1 unit)

Select one course:

Experimental Phonetics I: Speech Physiology SPSHS 400

Experimental Phonetics II: Speech Acoustics and Perception SPSHS 401

B. Language Science (1 unit)

Language Science SPSHS 420

C. Neuroanatomy and Neurophysiology of the Speech Mechanism (1 unit)

Neural Bases of Speech and Language

SPSHS 472

CONCENTRATION AREAS

For better preparation of students for the specific direction of the professional career that they prefer, and in anticipation for more specialization in the practice of speech-language pathology, students are strongly advised to follow one of two recommended concentration areas, Medical Settings Concentration or Comprehensive Concentration. Furthermore, there are two recommended options within the Comprehensive Concentration Area, School Settings and Infant-Toddler course sequences.

The Medical Settings Concentration Area emphasizes coursework in organic and motor-based speech disorders as well as in normal and disordered swallowing. It does not, however, presuppose that students acquire Type 10 State teacher certification. Such certification, however, can be obtained by fulfilling State requirements for specific course work.

The Comprehensive Concentration Area is appropriate for students who wish to practice speech-language pathology in schools or other settings. It consists of two similar sequences but with different emphases. The School Settings sequence emphasizes courses in language, phonology, fluency, and voice disorders, and recommends completing all requirements for teacher certification. The Infant-Toddler sequence is a supplement to the School Setting sequence responding to the need created by public laws which mandate early assessment and intervention services for children from birth to 5 years of age with identified disabilities and at-risk for disabilities. The provision of such services requires skills in excess of traditional preparation, primarily in Special Education, and includes clinical practicum with infants and young children. It is expected that most students who follow the Infant-Toddler sequence will also seek Type 10 State teacher certification for practical reasons.

MEDICAL SETTINGS CONCENTRATION AREA

A. Recommended Courses

Voice Disorders and Alaryngeal Speech	SPSHS 413	1 unit
Orofacial Anomalies	SPSHS 414	1 unit
Normal and Disordered Swallowing	SPSHS 415	1 unit
Motor Speech Disorders	SPSHS 416	1 unit
Language Disorders in Preschool Children	SPSHS 430	1 unit
Aphasia and Related Disorders	SPSHS 432	1 unit

B. Elective Courses

Experimental Phonetics I: Speech Physiology	SPSHS 400	1 unit
Experimental Phonetics II: Speech Acoustics and Perception	SPSHS 401	1 unit
Seminar in Stuttering	SPSHS 410	1 unit
Development and Disorders of Phonology and Articulation	SPSHS 411	1 unit
Language Disorders in School-Age Children	SPSHS 437	1 unit
Advanced Language Diagnostics and Computer Technology	SPSHS 435	1 unit
Assessment of Audition and Auditory Disorders	SPSHS 450	1 unit
Communication Disorders in Multicultural Populations	SPSHS 471	1 unit
Clinical Sociolinguistics	SPSHS 477	1 unit
Counseling in Communication Disorders	SPSHS 473	1 unit
Special Problems	SPSHS 495	0.5-1 unit
Thesis Research (in lieu of 2 units of elective courses)	SPSHS 499	2 units

C. Clinic Practicum

Advanced Clinical Practicum in Speech-Language Pathology (No more than 2 units can be applied toward degree requirements)	SPSHS 475	2 units
Clinical Practicum in audiology	SPSHS 459R	

D. Other Electives

Other electives within and outside of the department may be substituted with the consent of the major advisor. However, all electives must meet Graduate College requirements. Some examples are courses in Physiology, Psychology, Statistics, Physics, Chemistry, Anthropology, Speech Communication, Linguistics, Rehabilitation, Special Education, and Biology.

Recommended Course Sequence

Semester I, Fall 1 (3.25 units)

Speech Science Content Area

Language Science Content Area

Neuroanatomy and Physiology of the Speech Mechanism Content Area

SPSHS 496, Proseminar in Speech and Hearing Science

SPSHS 487[475C,D, and/or E], Advanced Clinical Practicum in Speech-Language Pathology (0.25 unit)

Semester II, Spring 1 (3.25 units)

SPSHS 489B[413], [Voice Disorders and Alaryngeal Speech]

SPSHS 495M[415], [Normal and Disordered Swallowing]

SPSHS 481[432], [Aphasia and Related Disorders]

SPSHS 496, Proseminar in Speech and Hearing Science

SPSHS 487[475C,D,and/or E], Advanced Clinical Practicum in Speech-Language Pathology (0.25 unit)

Semester III, Summer Term 1 (0.5 unit)

SPSHS 487[475C,D,and/or E], Advanced Clinical Practicum in Speech-Language Pathology (0.5 unit)

Semester IV, Fall 2 (3.5 units)

SPSHS [416], [Motor Speech Disorders]

SPSHS 399, [Quantitative Reasoning in Speech and Hearing Science]

Multicultural Content Area or 1 elective course

SPSHS 496, Proseminar in Speech and Hearing Science

SPSHS 487[475C,D,and/or E], Advanced Clinical Practicum in Speech-Language Pathology (0.5 unit)

Semester V, Spring 2 (4.5 units)

SPSHS 489A[414], [Orofacial Anomalies]

SPSHS 495P[430], Language Disorders in Preschool Children

2 units of elective courses, or 1 elective and 1 multicultural content area

SPSHS 496, Proseminar in Speech and Hearing Science

SPSHS 487[475C,D,and/or E], Advanced Clinical Practicum in Speech-Language Pathology (0.5 unit)

Graduate students will be enrolled in clinical practicum [475] every semester for a minimum of 0.25 units in Semester I, Fall 1, and Semester II, Spring 1, and a minimum of 0.5 units for Semesters III-V, except when student teaching.

COMPREHENSIVE CONCENTRATION AREA

A. Recommended Courses

Seminar in Stuttering (School setting emphasis only)	SPSHS 410	1 unit
Development and Disorders of Phonology and Articulation	SPSHS 411	1 unit
Normal and Disordered Swallowing	SPSHS 415	1 unit
Language Disorders in Preschool Children	SPSHS 430	1 unit
Language Disorders in School-Age Children	SPSHS 431	1 unit
Aphasia and Related Disorders	SPSHS 432	1 unit

B. Elective Courses (School Setting)

Voice Disorders and Alaryngeal Speech	SPSHS 413	1 unit
Orofacial Anomalies	SPSHS 414	1 unit
Motor Speech Disorders	SPSHS 416	1 unit
Advanced Language Diagnostics	SPSHS 435	1 unit
Communication and Language Problems of the Hearing Impaired,	SPSHS 455	1 unit
Counseling in Communication Disorders	SPSHS 473	1 unit
Special Problems	SPSHS 495	0.5-1 unit
Thesis Research (in lieu of 2 units of elective courses)	SPSHS 499	2 units

C. Elective Courses - (Infant-Toddler Area)

1. Select 2 of the 3 courses listed below:

Interdisciplinary Team Approaches to Planning and Intervention With Special Needs Children	SP ED 438	1 unit
Families of Children with Special Needs	SP ED 338	1 unit
Development and Characteristics of Young Children with Special Needs	SP ED 465	1 unit

2. Select 2 of the following courses:

Experimental Phonetics I: Speech Physiology	SPSHS 400	1 unit
Experimental Phonetics II: Speech Acoustics and Perception	SPSHS 401	1 unit
Orofacial Anomalies	SPSHS 414	1 unit
Advanced Language Diagnostics	SPSHS 435	1 unit
Communication and Language Problems of the Hearing Impaired	SPSHS 455	1 unit
Communication Disorders in Multicultural Populations	SPSHS 471	1 unit
Clinical Sociolinguistics	SPSHS 477	1 unit
Counseling in Communication Disorders	SPSHS 473	1 unit
Special Problems	SPSHS 495	0.5-1
unit Thesis Research (in lieu of two elective courses)	SPSHS 499	2 units

D. Clinical Practicum

Advanced Clinical Practicum in Speech-Language Pathology (No more than 2 units can be applied toward degree requirements)	SPSHS 475	2 units
Speech and Language Clinical Methods in the Schools	SPSHS 436	0.5 unit

Electrophysiologic Indices of Audition and Balance	SPSHS 451	1 unit
Diagnosis of Hearing Impairments in Infants and Young Children	SPSHS 452	1 unit
Hearing Aids and Amplification	SPSHS 453	1 unit
Seminar in Advanced Audiological Assessment	SPSHS 454	1 unit
Communication and Language Problems of the Hearing Impaired	SPSHS 455	1 unit
Manual Communication, I	SPSHS 302	0.5 unit

B. Elective Courses

Elect 3 of the following courses:

Seminar in Prosthetic Devices for Individuals with Hearing Loss	SPSHS 456	1 unit	
Language Disorders in Preschool Children	SPSHS 430	1 unit	
Language Disorders in School-Age Children	SPSHS 431	1 unit	
Development and Disorders of Phonology and Articulation	SPSHS 411	1 unit	
Voice Disorders and Alaryngeal Speech	SPSHS 413	1 unit	
Experimental Phonetics II: Speech Acoustics and Perception	SPSHS 401	1 unit	1 unit
Special Problems	SPSHS 495	1 unit	
Thesis Research (in lieu of 2 units of elective courses)	SPSHS 499	2 units	

C. Clinical Practicum

Advanced Clinical Practicum in Hearing Assessment and Rehabilitation (No more than 2.25 units can be applied toward degree requirements.)	SPSHS 459	2.25 units
Advanced Clinical Practicum in Speech-Language Pathology	SPSHS 475C	

D. Other Electives

Other electives within and outside of the department may be substituted with the consent of the major advisor. However, all electives must meet Graduate College requirements. Some examples are courses in Physiology, Psychology, Statistics, Physics, Chemistry, Anthropology, Speech Communication, Linguistics, Rehabilitation, Special Education, and Biology.

Recommended Course Sequence

Semester I, Fall 1 (3.75 units)

Hearing Science Content Area
 SPSHS 302, Manual Communication, I
 SPSHS 492[450], [Assessment of Audition and Auditory Disorders]
 SPSHS 491A[453], [Hearing Aids and Amplification]
 SPSHS 496, Proseminar in Speech and Hearing Science
 SPSHS 486[459R], Advanced Clinical Practicum in Hearing Assessment and (Re)Habilitation (0.25 unit)

Semester II, Spring 1 (3.5 units)

SPSHS 490[451], [Electrophysiologic Indices of Audition and Balance]
 SPSHS 392[452], Diagnosis of Hearing Impairments in Infants and Young Children
 1 elective course

SPSHS 496, Proseminar in Speech and Hearing Science
SPSHS 486[459A,R], Advanced Clinical Practicum in Hearing Assessment and (Re)Habilitation (0.5 unit)

Semester III, Summer 1 (0.5 unit)

SPSHS 486[459A,R,and/or E], Advanced Clinical Practicum in Hearing Assessment and (Re)Habilitation (0.5 unit)

Semester IV, Fall 2 (3.5-4.5 units, depends on enrollment in multicultural content area)

SPSHS 495C[454], [Seminar in Advanced Audiological Assessment]

SPSHS 418[455], [Communication and Language Problems of the Hearing Impaired]

SPSHS 399, [Quantitative Reasoning in Speech and Hearing Science]

SPSHS 496, Proseminar in Speech and Hearing Science

SPSHS 486[459A,R,and/or E], Advanced Clinical Practicum in Hearing Assessment and (Re)Habilitation (0.5 unit)

Multicultural Content Area (optional Fall 2 or Spring 2)

Semester V, Spring 2 (2.5-3.5 units, depends on enrollment in multicultural content area)

Multicultural Content Area if not taken in Fall 2 (1.0 unit)

2 units of elective courses

SPSHS 496, Proseminar in Speech and Hearing Science

SPSHS 486[459A,R,and/or E], Advanced Clinical Practicum in Hearing Assessment and (Re)Habilitation (0.5 unit)

Graduate students will be enrolled in clinical practicum [459] every semester for a minimum of 0.25 units in Semester 1, Fall 1, and a minimum of 0.5 units for Semesters II-V.

