Speech-Language-Hearing Undergraduate Research Opportunities  
Spring 2015

Name: ______________________________________  E-mail: ____________________________

Major(s): ___________________________________  Minor(s): _______________________

Current Year (highlight 1): Freshman  Sophomore  Junior  Senior  Grad/Pre-reqs

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<tr>
<th>SPLH Course</th>
<th>Semester Taken or Planned</th>
<th>Grade (for completed courses only)</th>
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<td>SPLH 120 Physics of Speech</td>
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<td>SPLH 261 Survey of Comm Dis</td>
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<td>SPLH 320 Communicating Brain</td>
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<td>SPLH 465 Clinical Phonetics</td>
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<td>SPLH 466 Language Science</td>
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<td>SPLH 565 Lang Sample Analysis</td>
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<td>SPLH 566 Lang Development</td>
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<td>SPLH 660 Research Methods</td>
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<td>SPLH 662 Speech Science</td>
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<td>SPLH 663 Hearing Science</td>
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<td>SPLH 671 Intro to SLP</td>
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<td>SPLH 668 Intro to AUD</td>
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<td>SPLH 670/672 Practicum</td>
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<td>Statistics</td>
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Please note any foreign languages you speak and your training (e.g., Spanish; 4 semesters completed at KU; study abroad in Madrid):

Research program you are completing (highlight all that apply; see description at end):

SPLH Departmental Honors  SPLH Research Experience Program  KU Honors Program  Human Biology

Other (specify): _____________________________________________________________

SPLH GPA __________________  Overall GPA __________________

Number of research credits you plan to complete each semester (e.g., 3 credits Fall 13; 3 credits Spring 14)  
NOTE: Only complete this form if you plan to start your research in Spring 2015.

Why are you interested in pursuing a research experience?
What areas of research/clinical practice interest you and why?

What days/times will you likely be available to meet with your mentor and work on your project?

Potential research projects are described on pages 3-5. Please rank order the faculty who you would like to work with. Lower numbers = faculty you would most like to work with (i.e., #1 choice). Do not put a number next to anyone who you would NOT want to work with. If you would like to propose your own project, please provide details about your topic in the space below.

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<td>Storkel</td>
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Description of Student-Initiated Research Project (only required for those proposing their own research topic)

Return Pages 1-2 with your resume and Advising Checklist/DPR to Kostas Kokkinakis, kokkinak@ku.edu by 5:00 pm on Friday, October 31, 2014 if you wish to start either the REP or the Honors program in Spring 2015.
Brady; Early Language Learning and Fragile X Syndrome laboratories; nbrady@ku.edu
Needs: 1 student completing 2-3 credits each semester for 2-4 semesters.
Coursework: Completion or co-enrollment in SPLH 566, SPLH 660, and statistics helpful but not required
Potential projects:
   a. Communication assessment for nonverbal individuals. In this project, students will describe how children and adults with severe disabilities communicate with gestures, vocalizations and AAC during scripted communication assessments. The student will observe videotapes help describe communication using an 11 point scale.
   b. Communication assessment for Spanish-speakers. This project entails coding interactive assessments that were administered to young children in Lima Peru. Students should be interested in learning to code early communication in children from Peru. At least intermediate Spanish abilities are required.
   c. Communication development children with fragile X syndrome. Fragile X syndrome (FXS) is the leading cause of inherited mental retardation, yet little is known about early communication development in children with FXS. We have been collecting data on a cohort of families with at least one child with FXS for 4 years. Students participate in coding mother-child interactions, and have the opportunity to develop their own projects. The student will also help to organize and analyze the data in order to describe early communication development in a group of children with FXS.
   d. Other potential projects on teaching new words to children with autism; prelinguistic and early linguistic development in children with FXS, deaf-blindness, autism, or Down syndrome.

Kokkinakis; Electrical Hearing Laboratory; kokkinak@ku.edu
Needs: 1 student completing 2-3 credits each semester for 1-4 semesters.
Required Coursework: completion or co-enrollment in SPLH 120 and/or SPLH 663 is required. Must have a flexible schedule. A grade of ‘B’ or higher in each course.
Potential projects:
   a. Speech understanding in adults with cochlear implants – Cochlear implants (CI) rely on extensive and sophisticated processing of speech signals in order to provide optimal electrical stimulation to the patient. In this project, students will learn about basic principles of cochlear implants and will be exposed to key concepts of signal processing strategies and how these relate to speech perception. The student will gain knowledge about this topic through assisting with computer simulations, experimental development and data collection.

Loeb; Multicultural Communication and Disorders Laboratory and Language Development and Intervention Laboratory; dianelo.edu
Needs: 1-2 student completing 2-3 credits for 1 semester (i.e., Spring only)
Required Coursework: Completion or co-enrollment in SPLH 565, SPLH 566.
Helpful coursework (but not required): SPLH 660 and Statistics.
Potential projects:
   a. Projects related to multicultural populations – Opportunities are available to be part of a working group that will be developing language enrichment programs for children at-risk who are also from different cultures such as Native American and Latino. Most projects focus on school-age children. You will gain knowledge about the topic through literature searches, writing research synopses, assisting with data collection and analysis, and developing a completed research project, such as a poster or participate in the writing of an article for dissemination.
   b. Projects related to language development and language intervention – Opportunities are available to study the syntax, morphology, and narrative skills of children with and without language impairments. Existing data on the efficacy of language intervention is also a potential topic for study. Most projects focus on school-age children. You will gain knowledge about the topic through literature searches,
writing research synopses, assisting with data collection and analysis, and developing a completed research project, such as a poster or participate in the writing of an article for dissemination.

c. Projects related to language development of premature infants- Opportunities are available to study the language development of children who were born premature. You will gain knowledge on the language sampling process at this age, parent interviewing, transcription and data analysis. You also will learn about prematurity and language impairment through literature searches, writing research synopses, and developing a completed research project, such as a poster or participate in the writing of an article for dissemination.

Storkel; Word & Sound Learning Laboratory; hstorkel@ku.edu
Needs: 1-2 students completing 2-3 credits each semester for 1-4 semesters
Coursework: completion or co-enrollment in SPLH 465 and SPLH 466 required. SPLH 660 and Statistics helpful but not required
Potential projects:
   a. Effect of misarticulation on word recognition – In this project, a student will collect and/or analyze data from preschool children or college age students in a word recognition task. In this task, participants hear words with a correctly articulated, misarticulated typical substitution, or misarticulated atypical substitution and must select a picture from a set of two choices. Response selection and speed will be analyzed.
   b. Word learning – In this project, a student will collect and/or analyze data from preschool children or college age students in a word learning task. The task is designed to examine how different properties of words affect learning words during input and retaining those words after training has been withdrawn.
   c. Child word learning from book reading – In this project, a student will assist with data collection and analysis of a book reading intervention intended to teach new vocabulary to Kindergarten children with SLI.
   d. Other potential projects on sound or word learning in typically developing children, children with speech sound delays, or adults learning a second or foreign language.
Description of Research Programs

**SPLH Departmental Honors (from the Undergraduate Catalog)**. Most departments and programs allow qualified majors to work toward graduation with departmental honors. Graduation with departmental honors is awarded in recognition of exceptional performance in the major, completion of a program of independent research or an alternative project, and a strong overall academic record.

In addition to the requirements of individual departments and programs (which must be approved by the College committee on undergraduate studies and advising), the College requires the following for graduation with departmental honors:

1. Candidates must declare the intention to work for departmental honors with the appropriate departmental honors coordinator(s) no later than the time of enrollment for the final undergraduate semester, but sooner if required by the department(s). Copies of the intent form should be returned to College Student Academic Services.

2. At the end of the final undergraduate semester, the candidate must have achieved an overall grade-point average of at least 3.25 and a grade-point average of at least 3.5 in the major. Both overall and major grade-point averages include work completed at other institutions, as well as at KU. No minimum grade-point average is required to declare candidacy for graduation with departmental honors unless specified by the department.

3. Each candidate’s departmental honors work must include independent research or an acceptable alternative project. The results of research are presented in a form appropriate to the requirements of the major department. Equivalents to the independent research component are established by approved departmental honors programs. In courses meeting the independent research requirement, the candidate must earn a grade of B or higher. Successful completion of all departmental honors requirements must be certified to the departmental honors coordinator(s) by a panel composed of at least three members of the College faculty who have read the report of the independent research and heard the oral presentation, where required.

In SPLH, student research is performed under the mentorship of a faculty member. The project may be an independent research idea generated by the student or may be a more collaborative project closely related to the mentor’s research program. Students must complete 6 to 8 credits of enrollment in SPLH 498 Departmental Honors Research with their faculty mentor. Students are required to present their final project at a departmental research symposium during the semester of completion.

**Research Experience Program (REP)**

University Coordinator: John Augusto (jaugusto@ku.edu; 864-7351)
SPLH Contact: Kostas Kokkinakis (kokkinak@ku.edu; 864-4467)

KU's Research Experience Program (REP) acknowledges a student's participation in the full undergraduate research process, from that initial interest in subject material gained through coursework to the design and implementation of an independent project to the presentation of a research or creative product to others. REP certification appears on a student's official KU transcript, communicating to others the student's educational experiences unique to a national research university like KU.

**Benefits to you:**

- **Integration:** Tie together your coursework and out-of-class experiences through your independent project.
- **Discovery:** Expand on your coursework to investigate the topics and issues that matter to you through an independent project.
- **Recognition:** Have your efforts recognized by an official REP designation on your KU transcript.
There are two components of the SPLH version of this program: (1) coursework in research/creative methods and (2) an independent research/creative project under the direction of SPLH faculty.

1. In terms of the coursework requirement, students must complete 2 research/creative methods courses with a grade of C or better. Options include:
   a. SPLH 465 Fundamentals of Clinical Phonetics;
   b. SPLH 565 Language Sample Analysis;
   c. SPLH 660 Research Methods.

2. In terms of the research/creative project, students must complete at least one semester of SPLH 498 Departmental Honors Research or SPLH 497 Mentored Research Experience, where they will pursue a research/creative project under the mentoring of SPLH faculty. Each student’s completed project must be shared with a wider audience. Options for sharing the research/creative project include:
   a. Presentation at the SPLH Undergraduate Research Symposium (occurs at the end of each semester)
   b. Presentation at the KU Undergraduate Research Symposium (occurs each Spring)
   c. Written thesis
   d. Presentation at a national meeting
   e. Submission of the paper as author/co-author for publication

3. Complete certification online certification form.

**Comparison of Departmental Honors and REP**
In terms of the relationship between the REP and the departmental honors program, the REP is a more flexible program. The departmental honors program has a set GPA requirement (i.e., 3.50 in the major; 3.25 overall). The departmental honors program also requires completion of 6 credits of SPLH 498 Departmental Honors Research. The REP has no GPA requirement (although students must earn a C or better in the research/creative methods courses) and only requires a semester of research activity (although students are able to complete a maximum of 8 credits of SPLH 498 or SPLH 497). Thus, the REP may be more appropriate for students who do not meet the departmental honors program GPA requirements or those who have more restricted schedules. Students are able to “double count” the research experience. That is, those completing the departmental honors program also meet the requirements for REP and can apply for REP certification. In addition, completion of REP or departmental honors can fulfill one of the six requirements of the University Honors Program.

**KU Honors Program**
Contact: [honors@ku.edu](mailto:honors@ku.edu)

Students in the University Honors Program must finish 8 honors units, a freshman honors seminar (or current/transfer honors seminar) and have a minimum 3.25 GPA in courses at KU to complete the Honors Program (your KU GPA rather than the KU+Transfer GPA).

**Breakdown of the 8 Honors units:**
1. Honors Courses Requirement (minimum of 6 courses). Must be fulfilled by completing Honors Courses, Graduate Level (700+) Courses, a Less Commonly Taught Language, and/or an Honors Course Contract. The freshman honors seminar (or current/transfer honors seminar) is a separate requirement and does not count towards this requirement.
2. Honors Experiences Requirement (minimum of 1). Must consist of the following Honors Experiences: Study Abroad, departmental honors, documented Research experience, approved and documented Internship experience or approved and documented Community Service. **Students interested in using an Honors Experience which will not appear on their transcript for one of their honors units are required to fill out an Honors Experience Form. For questions about fulfilling this requirement, call 785-864-4225.**
3. The 8th unit may be fulfilled with either an Honors Course or Honors Experience.