JDP-LCD Program Learning Outcomes

- The goals of the Joint Doctoral Program in Language and Communicative Disorders (JDP-LCD) as stated in the original proposal and that continue today are:
  - To provide doctoral level education in which studies of language and communicative behavior are brought together into a program that integrates communicative disorders, cognitive science, neurosciences, psychology and linguistics, taking advantage of the strengths and unique skills of the combined faculty at SDSU and UCSD.
  - To prepare professionals, educated in the interface between behavioral measures and the newer methods of cognitive neuroscience, to provide critical leadership in research and health services.
  - To prepare Ph.D. level persons in the field of language and communicative disorders to serve as faculty in university programs and scientists in a variety of settings to carry out needed research on the processes of language development, disorders, assessment, and intervention.
  - To prepare scientists who will carry out research in language and communicative disorders related to bilingualism and multiculturalism. This need is brought about by a dramatic shift in the composition of the U.S. population, leading to growing numbers of bilingual children and adults in California and across the US who are in need of diagnosis and treatment of communicative disorders.

Curriculum:
A key element of our program is to provide interdisciplinary training in normal and atypical language development and communication, and in the neural bases of language learning, use and loss. As such, students take courses in speech and language sciences and disorders, psychology, linguistics, cognitive science and neurosciences designed to provide a foundation in basic science and translational research. In addition, students are engaged in intense laboratory rotations that begin in the first year and other requirements intended to prepare students for the academic workplace and for research careers. Because of the interdisciplinary nature of the curriculum and research experiences of the program, students are enrolled on both campuses throughout their doctoral program. The Student Handbook may be consulted for more details about program requirements, faculty specializations, courses, advancement and dissertation requirements (http://slhs.sdsu.edu/phd/curriculum/).
**Major Concentration**

By the end of the first year, students select a major field of emphasis by choosing one of three concentrations: Adult Language, Child Language, or Multilingualism. However, since students are required to take some courses in each of the three concentrations, they often end up specializing in more than one concentration as their research interests mature:

- The Adult Language concentration is intended to provide intensive education in communicative disorders in adults. Students in this concentration will also develop expertise in the study of language processing in normal adults.
- The Child Language concentration is intended to provide specialized education in childhood (birth to adolescence) communicative disorders. Students in this concentration will also achieve competence in developmental psycholinguistics emphasizing language acquisition in normally developing children.
- The Multilingualism concentration is intended to provide education in cross-linguistic, ethnographic, and other comparative studies of communicative disorders in children and/or adults, including those associated with bilingualism and second language acquisition (including acquisition of sign language in deaf individuals).

**Methods Minor**

All students are required to develop basic expertise in experimental design and statistics, and to become familiar with standard techniques for behavioral assessment, e.g., intelligence testing, standardized tests of language ability, analyses of spontaneous language, design and implementation of experimental measures of language and other related cognitive behaviors. In addition, by the end of the third year all students declare a Methods Minor from one of three options; however, as with our major concentrations many students develop expertise in more than one method:

- The Behavioral Dynamics minor is intended for students who want to specialize in computer-controlled psycholinguistic methods for the study of language and cognitive processing in real-time.
- The Neural Imaging minor is intended for students who want to complement behavioral studies with neuroanatomical and physiological techniques, including event-related brain potentials (ERP) and structural magnetic resonance imaging (MRI) or functional magnetic resonance imaging (fMRI).
- The Neural Modeling minor is intended for students who are interested in the simulation of normal and abnormal language and cognition in artificial neural networks.