

LINGUISTICS (LING)

LING 500: Syntax II

3 Credits

Advanced topics in syntactic analysis and theory. LING 500 Syntax II (3) The aim of this course is to provide students with the skills necessary to contribute to our understanding of modern generative syntactic theory (although other theories may be introduced by professors from different theoretical backgrounds). An overview of the theory of early generative grammar and its attendant problems will be presented in this course. Attempts to resolve these issues in contemporary syntax via the minimalist program will be covered in as much depth as possible. Using the skills and arguments developed in this course, students will be required to do original research on a particular problem of syntax.

LING 502: Historical Linguistics

3 Credits

Principles of comparative linguistics; language families; reconstruction of lost languages. LING 502 Historical Linguistics (3) The goal of this course is to engage graduate students in an analysis of the competing theories of the methods for classifying the world's languages. The course will provide an historical overview of the field with a major emphasis on contemporary debates. At issue will be whether all languages can be reconstructed to a common source. Is there possible evidence for such a reconstruction? Can the methodology faithfully extend to the very remote past?

LING 504: Phonology II

3 Credits

Advanced topics in phonological analysis and theory. LING 504 Phonology II (3) Students in this course will examine the shift from rule-based to constraint-based theories of phonology with an emphasis on analyzing the shortcomings and paradoxes inherent in earlier approaches. At issue will be the search for a better understanding of how the phonological component continually interacts with phonetics and morphology in order to create optimal outputs. Students will analyze particular problems through reading various journal articles treating the same topic from different approaches. They will then evaluate the various approaches systematically. The goal of this course is to prepare students to do close readings of advanced research.

LING 512: Linguistics and Language Science

3 Credits

This course is designed to familiarize students interested in linguistic diversity and human-machine interaction with fundamental theories and approaches in linguistics and language science. This course presents key topics in linguistics, with emphasis on research techniques and interfaces with other scientific disciplines (e.g. engineering, information technology, computer science). The primary focus is on linguistic diversity across the life span, including within-language regional and social variation, bilingualism, and language disorders. The course targets practical applications such as natural language processing, machine learning, automatic speech recognition, speech synthesis, voice identification, corpus analysis, and machine translation.

LING 519: Current Statistical Practice in Language Science

3 Credits

Our primary goal in this course is to explore how to analyze and interpret quantitative data in language science. Part of this goal will be to gain familiarity and proficiency with a range of quantitative techniques common in language science. Reflecting trends in the field, linear and logistic mixed effects regression will be a major focus in addition to more well-known (e.g. ANOVA, multiple regression, chi-square) techniques. We will also spend some time exploring other methods such as multidimensional scaling, generalized additive modeling, and conditional inference trees, as well as more specialized techniques (e.g. drift-diffusion modeling). A more important goal is to learn to think critically about quantitative data and how we can learn from it. This includes a critical view of quantitative research in general, questions of measurement, the many decisions involved in analytic strategy, model structure and interpretation, and the ability to extend students' knowledge to new techniques independently.

RECOMMENDED PREPARATION: Completion of an introductory graduate level course in statistics, or advanced undergraduate courses. Experience with regression and familiarity with common software for statistical analysis in language science.

Cross-listed with: SPAN 519

LING 520: Seminar in Psycholinguistics

3-9 Credits/Maximum of 9

Consideration of theoretical and research issues relevant to psychological aspects of language sounds, syntax and semantics, and other cognitive support. LING (PSY) 520 Seminar in Psycholinguistics (3 per semester/maximum of 9) In this seminar, psycholinguistic approaches to bilingualism will be examined. Bilingualism is of interest for a number of reasons. First, despite the prevalence of monolinguals in the United States, most people of the world are bilingual. To have a genuinely universal account of human cognition will therefore require a detailed understanding of the relations between language and thought in individuals who speak and understand more than one language. It will be essential that research on basic cognitive functions in bilinguals examines both the course and the consequence of second language acquisition. Second, bilingualism provides a unique vantage point from which the relations between thought and language may be viewed. Historically, this issue was the focus of the debate over the Whorfian hypothesis (i.e., does language determine thought?). In contemporary psychology, it has emerged as a central issue in the debate over modularity. Understanding the form of language and memory representation in the bilingual may provide an important set of constraints in modeling the fundamental categories of the mind. Finally, bilingualism can provide a research tool for examining cognitive functions that are sometimes impenetrable within an individual's first language. The examination of the mapping of form to meaning in Constructing syntactically well-formed sentences in two languages with contrasting syntax, or in understanding the meaning of words that have similar form but differ in meaning in two languages, provides a tool for developing converging sources of evidence to test theories of language comprehension and memory. Topics to be covered include second language acquisition in children and adults, language comprehension and memory in second language, code switching and language mixing, the consequences of bilingualism, and the neuropsychology of bilingualism.

Cross-listed with: PSY 520

LING 525: Experimental Research Methods in Psycholinguistics

3 Credits

This course provides an overview of experimental research techniques used in language science.

LING 596: Individual Studies

1-9 Credits/Maximum of 9

Creative projects, including nonthesis research, which are supervised on an individual basis and which fall outside the scope of formal courses.

LING 597: Special Topics

1-9 Credits/Maximum of 9

Formal courses given on a topical or special interest subject which may be offered infrequently; several different topics may be taught in one year or term.

LING 823: Proseminar in Professional Issues in Language and Human Technology

3 Credits

This 3 credit course is designed to prepare students from disciplines in the language sciences and technological sciences for careers founded on principles of transdisciplinary research and collaboration. Application of these principles focuses on the integration of linguistic diversity in the design of human-centered technology. The course takes a holistic approach, recognizing that personal and professional development are intertwined. Students will engage with multimedia sources as well as more traditional academic writings. Guest speakers from within and outside Penn State will provide students with varied perspectives and expertise. Upon successful completion of this course, students will be able to create a plan for engagement in transdisciplinary team science; compare career paths in different academic and non-academic institutions; describe steps in preparation for the job search process and create materials; compose science communication for a variety of audiences; plan how to benefit from mentoring and how to be a good mentor; evaluate professional ethics in a broad range of settings; apply principles of intellectual property and entrepreneurship to a business proposal; discuss how to maintain mental health, manage stress, and maintain work-life balance; and interpret and apply principles of diversity, equity, inclusion, and accessibility with an emphasis on linguistic diversity.