Linguistics

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http://ling.yale.edu
M.A., M.Phil., Ph.D.

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Fields of Study
The Department of Linguistics embraces an integrative approach to the study of language, based on the premise that an understanding of the human language faculty arises only through the combination of insights from the development of explicit formal theories with careful descriptive and experimental work. Members of the department offer courses and conduct research in which theoretical inquiry proceeds in partnership with historical and comparative studies, fieldwork, experimental work, cognitive neuroscience, and computational and mathematical modeling. Faculty expertise includes all of the major domains of linguistics (phonetics, phonology, syntax, semantics, pragmatics) and spans a wide range of languages.

Special Requirements for the Ph.D. Degree

Course Work
The conception of linguistics embraced by the Yale Ph.D. program requires that students receive training that is both deep in its coverage of areas of linguistic inquiry and broad in the range of methodological approaches. The course work requirements are designed to accomplish these complementary goals. This course work includes a set of courses designed to expose students to core ideas, together with courses equipping students with a range of methodologies in linguistic research.

During their first five terms, students must complete a minimum of twelve term courses at the graduate level. During the initial two years of course work, students must receive at least three grades of H (= Honors). Two or more grades below HP (= High Pass) during the initial two-year period constitute grounds for dismissal from the Ph.D. program. As per Graduate School general regulations, grades of F cannot be counted toward degree requirements.

Foundational courses
This requirement ensures that students achieve breadth in several linguistic subfields. Students take six courses in four or more subfields of linguistics. The following courses satisfy this requirement: LING 612, Language Change; LING 636, Articulatory Phonology; LING 631, Neurolinguistics, or LING 617, Language and Mind; LING 635, Phonology II; LING 654, Syntax II; LING 664, Semantics II; LING 680, Morphology.

Students will decide on their courses, in consultation with the director of graduate studies (DGS) and other faculty, when they arrive on campus. Other sufficiently advanced courses may also satisfy the requirement.

Methodology courses
For the methodology requirement, students must take three relevant courses. The following courses, which are offered regularly by the department, qualify, but other courses may also qualify, to be determined in consultation with the adviser and DGS: LING 600, Experimentation in Linguistics; LING 619, The Evolution of Language and Culture; LING 624, Mathematics of Language; LING 627, Language and Computation I; LING 631, Neurolinguistics; LING 636, Articulatory Phonology; LING 641, Field Methods; an advanced course in statistics (e.g., S&DS 538, S&DS 563, S&DS 661, or PSYC 518).

One of the methodology courses must be taken during the first year of the program, and two must be completed by the end of the second year. Courses cannot simultaneously satisfy the foundational and methodology requirements.

Seminar courses
Graduate students are active participants in department reading groups and seminars. Students should participate in three advanced seminars in which they read the original literature of the field and write a research paper. With permission of their adviser and the DGS, students may enroll in the appropriate 790s-numbered LING course and count active participation in a department reading group, including the submission of a final research paper, as satisfying this requirement.
Research
The primary focus of a Ph.D. program is independent research. In the course of our Ph.D. program, students carry out cutting-edge linguistic research, culminating in the completion of a dissertation. To help students in the transition from “consuming” to also “producing” linguistic research, there are a number of structures and requirements in place.

Research adviser and first-year directed readings
By the end of the first term of the program, students find a department faculty member who acts as their research adviser. This choice should be made on the basis of compatibility of research interests and discussions between the student, faculty member, and DGS. Starting from the spring term of the first year, students will, with the help of their adviser, define a topic of research interest, meeting regularly (minimally once every three weeks) and carrying out a series of readings on this topic. Students should keep a research journal, describing their readings and how they fit in with work in the area, and chronicling the development of their thinking about the research topic. It is the faculty’s expectation that this exploration will form the foundation for the research reported in the student’s first qualifying paper (on which see below). Note however that the initial choice of research adviser is not binding: students who want to change their choice of topic or adviser for whatever reason may do so. It is the student’s responsibility to find a suitable adviser, and students are expected to have a faculty adviser at all times during their enrollment in the program. Some students have two faculty co-advisers.

Portfolio
At the conclusion of the first year of the program, students submit to the faculty a portfolio of two research papers, in two distinct areas (as listed above). These papers should demonstrate a student’s mastery of the material in these fields to the level covered in the foundational courses in the area, as well as the ability to identify a significant research question and argue for a possible solution. In short, such papers should be at the level of an excellent term paper, representative of a student’s best work during the first year of coursework. The faculty do not expect students to write papers expressly for the portfolio. Rather, the portfolio will typically consist of term papers from courses taken during the first year in the program. The deadline for submission of these papers is May 10 each year.

Annotated bibliography/research plan
On the basis of the research journal begun during the first year in the program, students will prepare an annotated bibliography and research plan (ABRP) for their first qualifying paper. The ABRP, which should be approximately twenty pages in length, should lay out the question that the student wants to explore, motivating its importance through a presentation and synthesis of relevant past literature on the topic. The deadline for submission of the ABRP is September 10.

Qualifying papers
Once the ABRP has been completed, the student will proceed to work on the qualifying papers (QPs). The goal of the QPs is to develop a student’s ability to conduct independent research in linguistics at the level of current scholarship in two different areas of linguistics. The faculty expect a QP to report on the results of a substantial project, which are written up in a manner consistent with the standards of the field, and to be eventually published in an academic journal or working papers. Students are strongly encouraged to identify a target journal early in the project.

The process of writing the first QP is broken into a number of smaller steps with specific deadlines for each (all during the second year of the program). (1) Students discuss their preliminary results in an appropriate venue (lab meeting, reading group, seminar, etc.) by no later than the end of the fall term. (2) Also by the end of the fall term, the student will send a request for a QP reader to the DGS. This request must include a title and brief summary of the project, and may also request specific faculty members to be involved. On the basis of research area and faculty availability, the DGS will identify a faculty member other than the adviser to serve as a QP reader. This reader will be involved in the ultimate evaluation of the QP once it is completed. Because it is useful to get a range of feedback on one’s work, we encourage students to make the best use of their QP reader by meeting with them and keeping them up to date on the progress of the project. (3) Students must submit a first draft of their QP to their adviser and reader no later than February 1. (4) Students present their work to the department at the yearly “QPFest,” shortly before spring recess. This takes the form of a twenty-minute conference talk to members of the department. (5) Students must submit the final version of the paper to their adviser and reader by March 31. Toward the end of the spring term of the second year, the student should begin to explore possible areas and advisers for the second QP, and must have identified an area and adviser by September 1 of the third year. Students follow the same steps and deadlines listed above for the second QP, this time during the third year.

The second QP should be in a different area of linguistics, with a different adviser, from the first QP. It is particularly important that students make satisfactory progress toward the first QP and complete all work by the relevant deadlines. Failure to do so may result in being asked to leave the program.

Prospectus
No later than the beginning of the sixth term (that is, the spring term of the third year), students choose a dissertation topic and dissertation director. By the beginning of the fourth year, students will present a dissertation prospectus to the entire faculty. The prospectus should lay out clearly the student’s proposed dissertation topic. It should motivate the importance of the topic, present the core idea of the proposed work together with its promise and viability, and demonstrate how this work fits into past research in the area. The prospectus should also identify a dissertation committee. The committee must include at least three faculty members (including the adviser), two of whom must be ladder faculty in the Linguistics department. The prospectus document should be about fifteen pages in length. After it is submitted, the prospectus is defended orally in front of the faculty. Upon successful completion of the prospectus defense, students advance to Ph.D. candidacy.

Dissertation
By the end of the seventh term, students must complete a chapter of the dissertation, together with a detailed outline of the dissertation and comprehensive bibliography. When the dissertation committee approves the chapter and dissertation outline, students are eligible for a University Dissertation Fellowship, which will support them in their fifth year of graduate study. Once advanced to
candidacy, the student will meet with the entire dissertation committee minimally once each term (but with frequency decided by the committee), to evaluate progress toward the dissertation. During this meeting, the committee will complete the committee meeting form, will provide a copy to the student, and will retain one for the department’s records.

Students are expected to complete their dissertations by the end of the sixth year. At least one month prior to the dissertation filing date, the completed dissertation must be orally defended. This defense will typically involve a public presentation of the main results of the dissertation and oral examination by the members of the dissertation committee. Committee members must be given the completed dissertation no less than two weeks prior to the date of the defense.

Language Requirement

Students are expected to exhibit some breadth in their knowledge of the languages of the world beyond those most commonly studied and those most similar in structure to the student's first language. LING 641, Field Methods, fulfills this requirement; alternatively, with the permission of the DGS, the student may instead take an appropriate language structure course, or one or more courses characterized as L3 or higher at Yale or the equivalent elsewhere. This requirement must be completed before the prospectus defense, when the student advances to Ph.D. candidacy.

Teaching Fellow/Research Assistant Requirements

The faculty regard teaching experience as an integral part of the graduate training program in Linguistics. All students serve as teaching fellows for a minimum of two terms, beginning in the first term of the third year. In addition, students must complete two additional terms of teaching assistantship. These may be either as a teaching fellow, or through participation in externally supported, supervised research as a research fellow. Research assistants may be provided by the Linguistics faculty and by various Yale and Yale-affiliated units. Before accepting a research assistantship in fulfillment of this requirement, students must receive approval from the DGS. To be approved, a research assistantship must meet the following criteria:

1. It must be supervised by a Linguistics department faculty member or a faculty member from an affiliated unit, such as Haskins Laboratories or the Yale School of Medicine.
2. It must provide research experience that complements the student’s academic plan of study and is related to the student’s dissertation research plans.
3. It must provide at least ten hours of experience per week.

If an approved research assistantship is accepted that does not provide a stipend equal to the standard departmental stipend, a University Fellowship will be provided to augment the stipend so as to bring it up to the departmental standard.

MASTER’S DEGREES

M.Phil. Students in the doctoral program who complete all requirements for the Ph.D. apart from the submission of a completed dissertation (but including the presentation and successful defense of a dissertation prospectus) may petition for the M.Phil. degree.

M.A. (en route to the Ph.D.) Students in the doctoral program who successfully complete the course work, examinations, and work samples required by the end of the second year of graduate study (see above) may petition for the M.A. degree.

Program materials are available online at http://ling.yale.edu.

COURSES

LING 500a / ENGL 500a / MDVL 665a, Old English I Emily Thornbury
The essentials of the language, some prose readings, and close study of several celebrated Old English poems.

LING 510a, Introduction to Linguistics Claire Bowern
The goals and methods of linguistics. Basic concepts in phonology, morphology, syntax, and semantics. Techniques of linguistic analysis and construction of linguistic models. Trends in modern linguistics. The relations of linguistics to psychology, logic, and other disciplines.

LING 512a, Historical Linguistics Chelsea Sanker
Introduction to language change and language history. Types of change that a language undergoes over time: sound change, analogy, syntactic and semantic change, borrowing. Techniques for recovering earlier linguistic stages: philology, internal reconstruction, the comparative method. The role of language contact in language change. Evidence from language in prehistory.

LING 515a, Introductory Sanskrit I Aleksandar Uskokov
An introduction to Sanskrit language and grammar. Focus on learning to read and translate basic Sanskrit sentences in the Indian Devanagari script. No prior background in Sanskrit assumed. Credit only on completion of LING 525/SKRT 520.

LING 519a, Perspectives in Grammar Veneta Dayal
This biweekly, in-person meeting of all first-year students is led by faculty members and TFs. Students are asked to reflect upon the content introduced in the courses they are taking and share their understanding of how these multiple perspectives connect with each other. The goal is to provide a forum where students can synthesize their views on the grammar of natural language and at the same time create a cohort experience for first-year students. ½ Course cr
LING 538a, Intermediate Sanskrit I  Aleksandar Uskokov
The first half of a two-term sequence aimed at helping students develop the skills necessary to read texts written in Sanskrit. Readings include selections from the Hitopadesa, Kathasaritsagara, Mahabharata, and Bhagavadgita. Prerequisite: LING 525 or equivalent.

LING 546b, Language, Sex, and Gender  Natalie Weber
Sex-based asymmetries in language structure and language use. Role of language in encoding, reflecting, or reinforcing social attitudes and behavior. The “he-man” lexicon: sex-marking, reform, and resistance. Gender and sexual diversity as linguistic variables. Genderlects: differences (real and perceived) between male and female speech, conversational styles, and linguistic communities.

LING 564a, Principles of Language Teaching and Learning  Nelleke Van Deussen-Scholl
Introduction to the basic principles of second-language acquisition theory, focusing on current perspectives from applied linguistics, sociolinguistics, and psycholinguistics. Topics include language teaching methodology, communicative and task-based approaches, learner variables, intercultural competence, and models of assessment.

LING 611b, Grammatical Diversity in U.S. English  Raffaella Zanuttini
Language as a system of mental rules, governing the sound, form, and meaning system. The (impossible) distinction between language and dialect. The scientific study of standard and nonstandard varieties. Social attitudes toward prestige and other varieties; linguistic prejudice. Focus on morpho-syntactic variation in North American English: alternative passives (“The car needs washed”), personal datives (“I need me a new printer”), negative inversion (“Don’t nobody want to ride the bus”), “drama SO” (“I am SO not going to study tonight”).

LING 617a, Language and Mind  Maria Pinango
The course is an introduction to language structure and processing as a capacity of the human mind and brain. Its purpose is to bridge traditional domains in linguistics (phonetics, morphology, syntax) with cognition (developmental psychology, memory systems, inferential reasoning). The main topics covered are morphosyntax and lexical semantics, sentence composition and sentence processing, first- and second-language acquisition, acquisition under unusual circumstances, focal brain lesions, and language breakdown.

LING 619a, The Evolution of Language and Culture  Claire Bowern
Introduction to cultural and linguistic evolution. How diversity evolves; how innovations proceed through a community; who within a community drives change; how changes can be “undone” to reconstruct the past. Methods originally developed for studying evolutionary biology are applied to language and culture.

LING 620a, General Phonetics  Jason Shaw
Investigation of possible ways of describing the speech sounds of human languages. Tools to be developed: acoustics and physiology of speech; computer synthesis of speech; practical exercises in producing and transcribing sounds.

LING 624a, Mathematics of Language  Robert Frank
Study of formal systems that play an important role in the scientific study of language. Exploration of a range of mathematical structures and techniques; demonstrations of their application in theories of grammatical competence and performance including set theory, graphs and discrete structures, algebras, formal language, and automata theory. Evaluation of strengths and weaknesses of existing formal theories of linguistic knowledge.

LING 631b, Neurolinguistics  Maria Pinango
The study of language as a cognitive neuroscience. The interaction between linguistic theory and neurological evidence from brain damage, degenerative diseases (e.g., Alzheimer’s disease), mental illness (e.g., schizophrenia), neuroimaging, and neurophysiology. The connection of language as a neurocognitive system to other systems such as memory and music.

LING 632b, Phonology I  Natalie Weber

LING 633a, The Literate Brain and Mind  Kenneth Pugh
The neurobiological and cognitive foundations of reading and writing. Emerging research on gene-brain-behavior analyses of typically and atypically developing readers. The relationship between speech perception/production and individual differences in literacy learning; distributed brain circuits that support word reading, text comprehension, and second-language learning; the neurobiology of acquired and developmental reading and writing disorders.

LING 634a, The Literate Brain and Mind  Kenneth Pugh
The neurobiological and cognitive foundations of reading and writing. Emerging research on gene-brain-behavior analyses of typically and atypically developing readers. The relationship between speech perception/production and individual differences in literacy learning; distributed brain circuits that support word reading, text comprehension, and second-language learning; the neurobiology of acquired and developmental reading and writing disorders.

LING 635b, Articulatory Phonology  Jason Shaw
Introduction to phonology as a system for combining units of speech (constriction gestures of the vocal organs) into larger structures. Analysis of articulatory movement data; modeling using techniques of dynamical systems. Emphasis on universal vs. language-particular aspects of gestural combination and coordination. Prerequisite: LING 520 or permission of the instructor.
LING 638b, Encoding Speech in Minds and Machines  Jason Shaw
This class introduces analytical tools that support quantitative reasoning about speech. Methods for encoding speech in computer applications are considered alongside theories of how speech is represented in human minds. The purpose in examining these two areas together is to explore the degree to which theories of the mental representation of speech can inform smart computer applications and the degree to which machine-learning techniques can advance the study of the human mind. Topics include computational modeling of speech movements, the resulting speech signal, human speech perception behavior, as well as relevant computational tools for signal processing, feature extraction, and machine learning. No prior experience with MATLAB or R is necessary, but some general familiarity with programming is required.

LING 641a, Field Methods  Chelsea Sanker
Principles of phonetics, phonology, morphology, syntax, and semantics applied to the collection and interpretation of novel linguistic data. Data are collected and analyzed by the class as a group, working directly with a speaker of a relatively undocumented language.

LING 653a, Syntax I  Raffaella Zanuttini
An introduction to the syntax (sentence structure) of natural language. Introduction to generative syntactic theory and key theoretical concepts. Syntactic description and argumentation. Topics include phrase structure, transformations, and the role of the lexicon.

LING 654b, Syntax II  Jim Wood
Recent developments in syntactic theory: government and binding, principles and parameters, and minimalist frameworks. In-depth examination of the basic modules of grammar (lexicon, X-bar theory, theta-theory, case theory, movement theory). Comparison and critical evaluation of specific syntactic analyses. Prerequisite: LING 653.

LING 663a, Semantics I  Venceta Dayal
Introduction to truth-conditional compositional semantics. Set theory, first- and higher-order logic, and the lambda calculus as they relate to the study of natural language meaning. Some attention to analyzing the meanings of tense/aspect markers, adverbs, and modals.

LING 675b / PHIL 669b, Pragmatics  Laurence Horn
Context-dependent aspects of meaning and inference. Speech act theory, presupposition, implicature. Role of pragmatics in the lexicon and in meaning change. The semantics-pragmatics distinction from different perspectives; the position of pragmatics in linguistic theory.

LING 732a, Linguistic Structure in Speech Planning and Production  Jason Shaw
How do the cognitive processes involved in speech production relate to linguistic structure, including the morphological and phonological structure of words? This seminar engages with this question by bringing together primary readings on (1) neurocognitive models of speech motor control and (2) language-specific phonetic patterns, as they relate to morphological and phonological structure. Prerequisite: LING 620, LING 635, LING 636, LING 638, or permission of the instructor.

LING 744a, Topics in Phonology: Prosody, Syntax, Structure  Natalie Weber
Introduction to the analysis of prosodic structure, with a focus on the relation of prosodic structure to syntax. Survey of current theories of the correspondence between syntactic and prosodic structure. Particular emphasis on comparing theories and their predictions for language typology. Some empirical analysis of prosodic structure in individual languages. Prerequisites: LING 632 and LING 653, or permission of the instructor. LING 635 is recommended but not required.

LING 765a, Semantic Change  Joshua Phillips
Investigation of systematic change in the domain of semantics and pragmatics. Empirical phenomena include grammaticalization in the domain of tense, aspect, and modality markers, markers of location and possession, and negation, as well as intensifiers. Focus on reconciling grammaticalization and typological research with formal semantic studies. Prerequisite: LING 663 or permission of the instructor.

LING 772a, Meaning, Concepts, and Words  Maria Pinango
The only way a finite brain can produce an unlimited number of novel thoughts is by storing a finite system. It is proposed that part of this system is a large collection of stored parts, which we call “concepts” and which are further combined and recombined via predetermined principles. In order to allow us to express our thoughts, our finite brain must also include a system of associating combinations of concepts with combinations of words and sentences. In this seminar we investigate proposals and empirical evidence from cognitive psychology, linguistics, and cognitive neuroscience, seeking to explain this connection between the ways we combine our concepts and the ways we combine our words and phrases.

LING 779a, Morphology-Syntax Interface  Jim Wood
A research seminar in which original research is surveyed and discussed critically. The course is appropriate for advanced undergraduates with some training in linguistics (and/or who are conducting research for senior theses), and graduate students who are conducting original research.
LING 780a, Topics in Computational Linguistics: Neural Network Models of Linguistic Structure  Robert Frank
An introduction to the computational methods associated with “deep learning” (neural network architectures, learning algorithms, network analysis). The application of such methods to the learning of linguistic patterns in the domains of syntax, phonology, and semantics. Exploration of hybrid architectures that incorporate linguistic representation into neural network learning. Prerequisites: Python programming, basic calculus and linear algebra, introduction to linguistic theory (LING 106, 110, 116, 217 or equivalent).