

LINGUISTICS

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Linguistics is the scientific study of language. The major in Linguistics offers a program of study leading toward an understanding of phonological, grammatical, and semantic structure and of various approaches to descriptive, experimental, and historical linguistics. Majors may concentrate on theoretical, experimental, or computational linguistics, on various aspects of comparative grammar, or on a particular family of languages. Interested students should consult the director of undergraduate studies.

COURSES FOR NONMAJORS AND MAJORS

Students with no previous background in linguistics are encouraged to approach the field by taking a 100-level course.

REQUIREMENTS OF THE MAJOR

The major requires twelve term courses in linguistics and related areas, distributed as follows:

1. Breadth requirement (four courses). All majors must take a course in each of the core areas of phonology (LING 232) and syntax (LING 253). In addition, at least one course must be taken in any two of the six remaining core areas of linguistics: phonetics, morphology, semantics/pragmatics, computational linguistics, language and mind/brain, and historical linguistics.
2. Depth requirement (two courses). In one of the eight core areas of linguistics, students must take two additional courses beyond the introductory level.
3. Electives (four courses). Four additional courses relating to linguistics are required, at least one of which must be at the 200 level or above. Electives may be chosen from courses offered by the Linguistics department or, with approval of the director of undergraduate studies, from related courses in programs such as Anthropology, Classics, Cognitive Science, Computer Science, English, Philosophy, Psychology, or foreign languages.
4. Research requirement (one course). LING 490, Research Methods in Linguistics, is required and is usually taken in the fall term of the senior year.

SENIOR REQUIREMENT

Senior requirement (one course). Students attend a research colloquium and write a senior essay in LING 491 during the spring term of the senior year.

ADVISING

Combined B.A./M.A. degree program Exceptionally able and well-prepared students may complete a course of study leading to the simultaneous award of the B.A. and M.A. degrees after eight terms of enrollment. See Simultaneous Award of the Bachelor's and Master's Degrees under Special Arrangements in the Academic Regulations. Interested students should consult the director of undergraduate studies prior to the sixth term of enrollment for specific requirements in Linguistics.

REQUIREMENTS OF THE MAJOR

Prerequisites None

Number of courses 12 term courses (incl senior req)

Specific courses required LING 232, 253, 490

Distribution of courses 1 course each in 2 addtl core areas, as specified; 2 addtl courses beyond intro level in 1 core area; 4 electives, at least 1 at the 200 level or above

Senior requirement LING 491

FACULTY OF THE DEPARTMENT OF LINGUISTICS

Professors Claire Bowern, Robert Frank (*Chair*), Laurence Horn (*Emeritus*), †Frank Keil, †Joshua Knobe, †Jason Stanley, †Zoltán Szabó, Petronella Van Deusen-Scholl (*Adjunct*), Raffaella Zanuttini

Associate Professors Maria Piñango, Kenneth Pugh (*Adjunct*)

Assistant Professors Jason Shaw, Natalie Weber, Jim Wood

Lector Jessica Tanner

Lecturer Hadas Kotek

†A joint appointment with primary affiliation in another department.

Introductory Courses

Courses in this group do not require previous study of linguistics.

ASL 110a, American Sign Language I Jessica Tanner

An introduction to American Sign Language (ASL), with emphasis on vocabulary, ASL grammar, Deaf Culture and Conversational skills. Use of visual material (DVD), communicative activities, grammar drills, classifiers and Deaf Culture study. ASL 120 is not required to earn credit for ASL 110. L1 1½ Course cr

ASL 120b, American Sign Language II Jessica Tanner

A continuation to American Sign Language (ASL) I, with emphasis on ASL grammar, expressive and receptive skills in storytelling and dialogues. Use of visual materials (DVD), grammar drills, proper use of non-manual markers and body language. Emphasis on character development, role shifting and story cohesion. Prerequisite: ASL 110. L2 1½ Course cr

LING 110a, Language: Introduction to Linguistics Jason Shaw

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 relation of linguistics to psychology, logic, and other disciplines. SO

LING 112a, Historical Linguistics Claire Bowern and Rikker Dockum

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. WR, HU

*** LING 115a / SKRT 110a, Introductory Sanskrit I** Aleksandar Uskokov

An introduction to Sanskrit language and grammar. Focus on learning to read and translate basic Sanskrit sentences in Devanagari script. No prior background in Sanskrit assumed. L1 1½ Course cr

LING 116b / CGSC 216b / PSYC 116, Cognitive Science of Language Robert Frank

The study of language from the perspective of cognitive science. Exploration of mental structures that underlie the human ability to learn and process language, drawing on studies of normal and atypical language development and processing, brain imaging, neuropsychology, and computational modeling. Innate linguistic structure vs. determination by experience and culture; the relation between linguistic and nonlinguistic cognition in the domains of decision making, social cognition, and musical cognition; the degree to which language shapes perceptions of color, number, space, and gender. SO

LING 125b / SKRT 120b, Introductory Sanskrit II Aleksandar Uskokov

Continuation of SKRT 110. Focus on the basics of Sanskrit grammar; readings from classical Sanskrit texts written in Devanagari script. After SKRT 110. L2 1½ Course cr

LING 138a / SKRT 130a, 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*. After SKRT 120 or equivalent. L3

LING 148b / SKRT 140b, Intermediate Sanskrit II Aleksandar Uskokov

Continuation of SKRT 130, focusing on Sanskrit literature from the *kavya* genre. Readings include selections from the *Jatakamala* of Aryasura and the opening verses of Kalidasa's *Kumarasambhava*. After SKRT 130 or equivalent. L4

*** LING 150a / ENGL 150a, Old English** Emily Thornbury

An introduction to the language, literature, and culture of earliest England. A selection of prose and verse, including riddles, heroic poetry, meditations on loss, a dream vision, and excerpts from *Beowulf*, which are read in the original Old English. HU

Intermediate Courses

Some courses in this group have prerequisites; others do not, and may be taken as a student's first course in linguistics.

*** LING 200b, Experimentation in Linguistics** Maria Piñango and Jason Shaw

Principles and techniques of experimental design and research in linguistics. Linguistic theory as the basis for framing experimental questions. The development of theoretically informed hypotheses, notions of control and confounds, human subject research, statistical analysis, data reporting, and dissemination. Prerequisite: LING 110, 117, 220, CGSC 110, or PSYC 110, or permission of instructor. SO

*** LING 211b, 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 non-standard 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"). SO

LING 217a / EDST 237a / PSYC 317a, Language and Mind Maria Piñango

The structure of linguistic knowledge and how it is used during communication. The principles that guide the acquisition of this system by children learning their first language and adults learning a second language. The processing of language in real-time. Language breakdown as a result of brain damage. SO

LING 219a / ANTH 380a, The Evolution of Language and Culture Claire Bowers

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. None WR, SO

LING 220b / PSYC 318b, General Phonetics Jason Shaw

Investigation of possible ways to describe the speech sounds of human languages. Acoustics and physiology of speech; computer synthesis of speech; practical exercises in producing and transcribing sounds. SO

LING 224a, 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. QR, SO

LING 227a / PSYC 327a, Language and Computation I Robert Frank

Design and analysis of computational models of language. Topics include finite state tools, computational morphology and phonology, grammar and parsing, lexical semantics, and the use of linguistic models in applied problems. Prerequisite: prior programming experience or permission of instructor. QR, SO

LING 231b / PSYC 331b, Neurolinguistics Maria Piñango

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. SO

*** LING 232a, Introduction to Phonological Analysis** Natalie Weber

The structure of sound systems in particular languages. Phonemic and morphophonemic analysis, distinctive-feature theory, formulation of rules, and problems of rule interpretation. Emphasis on problem solving. Prerequisite: LING 220, or a grade of B or above in LING 110. SO

LING 233b, The Literate Brain and Mind Kenneth Pugh

The development of fluent reading and writing skills in children is essential for achieving success in the modern world, yet significant numbers of people from all languages and cultures fail to obtain adequate literacy outcomes. This course examines: 1) the genetic neurobiological and cognitive foundations of reading and writing, 2) how learning to read both depends upon and changes oral language systems in the brain, 3) how insights from cognitive neuroscience inform our understanding of teaching and remediation of language and literacy disorders, and 4) how all of this is both similar and dissimilar across contrastive written languages and diverse cultures. Students acquire familiarity with multiple brain imaging tools and what we need to do to deliver on the promise of neuroscience in education. LING 110 or CGSC 110 is recommended, but not required. SO

*** LING 235b, Phonological Theory** Natalie Weber

Topics in the architecture of a theory of sound structure. Motivations for replacing a system of ordered rules with a system of ranked constraints. Optimality theory: universals, violability, constraint types and their interactions. Interaction of phonology and morphology, as well as the relationship of phonological theory to language acquisition and learnability. Opacity, lexical phonology, and serial versions of optimality theory. Prerequisite: LING 232 or permission of instructor. SO RP

*** LING 241b, Field Methods** Claire Bowers

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. Open to majors and graduate students in Linguistics, and to others with permission of instructor. Students should have taken LING 232 or LING 220 and one other linguistics class. SO

LING 253a, Syntax I Raffaella Zanuttini

If you knew all the words of a language, would you be able to speak that language? No, because you’d still need to know how to put the words together to form all and only the grammatical sentences of that language. This course focuses on the principles of our mental grammar that determine how words are put together to form sentences. Some of these principles are shared by all languages, some differ from language to language. The interplay of the principles that are shared and those that are distinct allows us to understand how languages can be very similar and yet also very different at the same time. This course is mainly an introduction to syntactic theory: it introduces the questions that the field asks, the methodology it employs, some of the main generalizations that have been drawn and results that have been achieved. Secondly, this course is also an introduction to scientific theorizing: what it means to construct a scientific theory, how to test it, and how to choose among competing theories. SO

LING 254b, Syntax II Hadas Kotek

Recent developments in the principles and parameters approach to syntactic theory. In-depth exploration of theoretical and empirical issues in long-distance dependencies (island effects, dependency types, movement vs. binding), the character of syntactic structure (constituency, thematic mapping, functional categories), and the architecture of grammatical derivations (logical form, operations for structure building, anaphora). Prerequisite: LING 253. SO

LING 263a, Semantics I Hadas Kotek

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. QR, SO

LING 271a / PHIL 271a, Philosophy of Language Jason Stanley

An introduction to contemporary philosophy of language, organized around four broad topics: meaning, reference, context, and communication. Introduction to the use of logical notation. HU

Advanced Courses and Seminars

*** LING 372a, Meaning, Concepts, and Words** Maria Piñango

A cognitive approach to the structure of meaning from the perspective of the language system. The brain's finite collection of stored concepts, which are combined and recombined via predetermined principles. The system of associating combinations of concepts with combinations of words and sentences to produce an unlimited number of novel thoughts. Prerequisite: at least one course in linguistics, psychology, or cognitive science. SO

*** LING 378a, The Syntax of Speech Participants** Raffaella Zanuttini

This course focuses on grammatical elements that make salient the role of speaker and addressee: markers of politeness; pronouns that express the familiar and polite distinction; vocatives; as well as "presentatives," including sentences whose function is to bring something to the attention of the addressee. On the empirical side, we discover, describe, and compare elements that convey information about the addressee, the speaker, or the speaker-addressee relation. On the theoretical side, we ask which aspects of the information that they convey should be encoded in the syntax, if any, and how it should be encoded. Prerequisite: LING 253, or permission of instructor. SO

Research Courses

*** LING 490a / PSYC 372a, Research Methods in Linguistics** Hadas Kotek

Development of skills in linguistics research, writing, and presentation. Choosing a research area, identifying good research questions, developing hypotheses, and presenting ideas clearly and effectively, both orally and in writing; methodological issues; the balance between building on existing literature and making a novel contribution. Prepares for the writing of the senior essay.

*** LING 491b, The Senior Essay** Raffaella Zanuttini

Research and writing of the senior essay under the guidance of a faculty adviser. Students present research related to their essays in a weekly colloquium. Prerequisite: LING 490.

Related Courses

*** ANTH 309b, Language and Culture** Paul Kockelman

The relations between language, culture, and cognition. What meaning is and why it matters. Readings in recent and classic works by anthropologists, linguists, psychologists, and philosophers. SO

*** ANTH 332a, Endangered Languages in Social Context** J. Joseph Errington

An introduction to language endangerment as a global phenomenon. Topics include politics of bilingualism and language shift, politics of linguistic identity, ethnic and national communities, and language in media. SO

*** ANTH 333b, Bilingualism in Social Context** J. Joseph Errington

The linguistic phenomenon of bilingualism presented through broad issues in social description inseparably linked to it: growth and change in bilingual communities; bilingual usage, social identity, and allegiance; and interactional significances of bilingual speech repertoire use. SO

*** ANTH 413a, Language, Culture, and Ideology** J. Joseph Errington

Review of influential anthropological theories of culture, with reference to theories of language that inspired or informed them. American and European structuralism; cognitivist and interpretivist approaches to cultural description; the work of Bakhtin, Bourdieu, and various critical theorists. SO RP

*** CHLD 128b / EDST 128b / PSYC 128b, Language, Literacy, and Play** Nancy Close and Carla Horwitz

The complicated role of play in the development of language and literacy skills among preschool-aged children. Topics include social-emotional, cross-cultural, cognitive, and communicative aspects of play. WR, SO RP

CPSC 470b, Artificial Intelligence Brian Scassellati

Introduction to artificial intelligence research, focusing on reasoning and perception. Topics include knowledge representation, predicate calculus, temporal reasoning, vision, robotics, planning, and learning. After CPSC 201 and 202. QR

LATN 110a, Beginning Latin: The Elements of Latin Grammar Staff

Introduction to Latin. Emphasis on morphology and syntax within a structured program of readings and exercises. Prepares for LATN 120. No prior knowledge of Latin assumed. Preregistration, which is required, takes place at the Academic Fair. See the *Calendar for the Opening Days* or the departmental Web site for details about preregistration. L1 RP 1½ Course cr

CPSC 477b, Natural Language Processing Dragomir Radev

Linguistic, mathematical, and computational fundamentals of natural language processing (NLP). Topics include part of speech tagging, Hidden Markov models, syntax and parsing, lexical semantics, compositional semantics, machine translation, text classification, discourse, and dialogue processing. Additional topics such as sentiment analysis, text generation, and deep learning for NLP.

Prerequisites: CPSC 202 and CPSC 223, or permission of instructor. QR

*** LATN 390b, Latin Syntax and Stylistics** Joseph Solodow

A systematic review of syntax and an introduction to Latin style. Selections from Latin prose authors are read and analyzed, and students compose short pieces of Latin prose. For students with some experience reading Latin literature who desire a better foundation in forms, syntax, idiom, and style. L5, HU

PHIL 115a, First-Order Logic Elizabeth Miller

An introduction to formal logic. Study of the formal deductive systems and semantics for both propositional and predicate logic. Some discussion of metatheory. QR

PHIL 267a, Mathematical Logic Sun-Joo Shin

An introduction to the metatheory of first-order logic, up to and including the completeness theorem for the first-order calculus.

Introduction to the basic concepts of set theory. Prerequisite: PHIL 115 or permission of instructor. QR

*** PHIL 427b, Computability and Logic** Sun-Joo Shin

A technical exposition of Gödel's first and second incompleteness theorems and of some of their consequences in proof theory and model theory, such as Löb's theorem, Tarski's undefinability of truth, provability logic, and nonstandard models of arithmetic. Prerequisite:

PHIL 267 or permission of instructor. QR, HU

*** SLAV 202a, Church Slavonic** Harvey Goldblatt

A study of the long history of Church Slavonic, with special attention given to "New" or "Synodal" Church Slavonic, the language used in the "Elizabeth" or "Synodal" Bible (first published in 1751), which remains even today the authorized version of the Russian Orthodox Church. Special emphasis on the reading of representative New Testament excerpts from this "Synodal Bible," comparing them to equivalent textual portions written in both earlier forms of Russian Church Slavonic and Modern Russian. Conducted in English.

Prerequisite: Knowledge of Modern Russian.