LINGUISTICS (LING)

* LING 033a / ENGL 033a, Words, Words, Words: The Structure and History of English Words  Peter Grund
Meggings. Perpendicular. Up. Ain’t. Eerily. Bae. The. These are all words in the English language, but, like all words, they have different meanings, functions, and social purposes; indeed, the meaning and function may be different for the same word depending on the context in which we use it (whether spoken or written). In this course, we explore the wonderful world of words. We look at how we create new words (and why), how we change the meaning of words, and how words have been lost (and revived) over time. As we do so, we look at debates over words and their meanings now (such as the feeling by some that ain’t is not a word at all) and historically (such as the distaste for subpeditals for ‘shoes’ in the sixteenth century), and how words can be manipulated to insult, hurt, and discriminate against others. We look at a wide range of texts by well-known authors (such as Shakespeare) as well as anonymous online bloggers, and we make use of online tools like the Google Ngram viewer and the Corpus of Historical American English to see how words change over time. At the end of the course, I hope you see how we make sophisticated use of words and how studying them opens up new ways for you to understand why other people use words the way they do and how you can use words for various purposes in your own speech and writing. Enrollment limited to first-year students.  HU

* LING 107a / ER&M 207a, Language Endangerment and Revitalization  Edwin Ko
Introduction to language endangerment and language revitalization. This course explores a range of theories and practices that provide the basis by which linguists and language activists aim to revitalize endangered languages in communities around the world. Beginning with surveying the various ways in which the world’s linguistic diversity and language ecologies can be assessed and discussing the serious threats to that diversity, why this might be a matter of concern, and the principle of linguistic human rights, the course will narrow toward individual student projects to investigate a minority language in some depth and report on its status with respect to the range of issues discussed in class.  WR, SO

* LING 109b / ENGL 3149b, History of the English Language  Peter Grund
The story of the English language is a remarkable one. During its 1,500-year history, English has gone through striking changes. For example, in the early Middle Ages, the word take did not exist in English; it was later borrowed from the language of the Vikings. When a person in the 16th century claimed that someone was nice, they meant that the person was foolish. In the 17th century, her could be spelled har, her, hor, hur, and hyr by people living in the same community. And more recently we see how like has taken on new functions, especially in quotations. We will explore how and why these, and other developments took place. We look at how major historical events have spurred changes in the English language, and how people from all walks of life (from well-known authors like Shakespeare and Austen to anonymous scribes and letter writers) influence the path of change. Exploring these questions will also force us to consider whether we should more appropriately be talking about “histories of Englishes” rather than “the history of English.” By the end of the course, you see how the English you use has been shaped by people and forces over several centuries,
and how you yourself contribute to the continuing change of the English language.
Formerly ENGL 149.  

LING 110a, Language: Introduction to Linguistics  Staff
This is a course about language as a window into the human mind and language as glue in human society. Nature, nurture, or both? Linguistics is a science that addresses this puzzle for human language. Language is one of the most complex of human behaviors, but it comes to us without effort. Language is common to all societies and is typically acquired without explicit instruction. Human languages vary within highly specific parameters. The conventions of speech communities exhibit variation and change over time within the confines of universal grammar, part of our biological endowment.

The properties of universal grammar are discovered through the careful study of the structures of individual languages and comparison across languages. This course introduces analytical methods that are used to understand this fundamental aspect of human knowledge. In this introductory course students learn about the principles that underly all human languages, and what makes language special. We study language sounds, how words are formed, how humans compute meaning, as well as language in society, language change, and linguistic diversity.  

LING 112b, Historical Linguistics  Edwin Ko
Introduction to language change and language history. How do people use language, and how does that lead to language change 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 (doing archaeology with language); language change in individuals, and language in society.  

*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.  

LING 116b / CGSC 216b / PSYC 116b, 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.  

LING 119b, How to Create a Language: Constructed Language and Natural Language  Lydia Newkirk
This course explores how languages get invented, drawing inspiration both from well-known constructed/invented languages like Klingon, Dothraki, and Esperanto, as well as from natural languages. Students learn about the primary linguistic aspects of natural language—Phonetics, Phonology, Morphology, Syntax, and Semantics—and learn how those aspects of grammar are used in various constructed languages. Students, working in small groups, create and describe a new language (or at least
a fragment of a new language) over the course of the semester, using the principles learned in class.  

**LING 131a, Languages of Africa**  Augustina Owusu  
Introduction to the almost 2000 languages of the African continent; phonology (sound systems), grammar and syntax, lexicon (words and word structure), semantics (word meanings); linguistic diversity and culture; language endangerment and planning, writing systems, and resources in natural language processing  

**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.  

* **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.  

**LING 167a, Meaning: What, How, Why**  Veneeta Dayal  
This course centers around the following questions: What are the meaningful units of language--words, or units that are smaller/larger than words? How can we describe the meanings that we intuitively associate with these units? Why is it important to have a precise way of studying meaningful aspects of language? It places the study of meaning within a general approach to the scientific study of language by approaching it through the lens of empirical phenomena that students can relate to in their own use of language. At the end of the course students, working in small groups, make a poster presentation showcasing their understanding of some aspect of natural language meaning. This provides them the opportunity to receive and respond to feedback from their peers as well as graduate students and faculty.  

* **LING 200b, Experimentation in Linguistics**  Maria Pinango  
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.  

* **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").  

* **LING 212a, Linguistic Change**  Edwin Ko  
How languages change, how we study change, and how language relates to other areas of society. This seminar is taught through readings chosen by instructor and students, on topics of interest. Prerequisite: LING 112 or equivalent.  

WR, SO
LING 217a / EDST 237a / PSYC 317a, Language and Mind  Maria Pinango
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, by children learning language in unusual circumstances (heritage speakers, sign languages) and adults learning a second language, bilingual speakers. The processing of language in real-time. Psychological traits that impact language learning and language use.  SO  RP  0 Course cr

LING 219b / ANTH 380b, The Evolution of Language and Culture  Edwin Ko
Introduction to cultural and linguistic evolution. How human language arose; 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.  WR, SO  0 Course cr

LING 220a / PSYC 318a, Phonetics I  Natalie Weber
Each spoken language composes words using a relatively small number of speech sounds, a subset of the much larger set of possible human speech sounds. This course introduces tools to describe the complete set of speech sounds found in the world’s spoken languages. It covers the articulatory organs involved in speech production and the acoustic structure of the resulting sounds. Students learn how to transcribe sounds using the International Phonetic Alphabet, including different varieties of English and languages around the world. The course also introduces sociophonetics, how variation in sound patterns can convey social meaning within a community, speech perception, and sound change.  SO  0 Course cr

LING 227a / PSYC 327a, Language and Computation I  Tom McCoy
This course introduces the design and analysis of computational models of language. There are many properties of language that make it challenging to handle computationally: First, language is ambiguous - a given word or sentence can have many possible meanings. Second, our linguistic experience is sparse - many aspects of language (e.g., certain sentence structures) occur very rarely, posing a challenge for computational systems that learn from data. Third, language has an enormous amount of hidden structure - words and other linguistic units can have complex relationships with each other that are not apparent on the surface. In this course, we explore the computational approaches that can overcome these challenges. Topics include finite state tools, neural networks, Bayesian approaches, 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 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. At least one class that introduces students to linguistic theory and linguistic argumentation from at least one perspective, including any of the following: (1) LING 217 Language and Mind, (2) LING 110 Intro to linguistics, (3) LING 253 Syntax 1, (4) LING 112 Historical Linguistics, (5) LING
232 Phonology I, (6) LING 220 General Phonetics, or (7) Instructor permission. **SC, SO** 0 Course cr

* **LING 232b, Phonology I** Natalie Weber
  Why do languages sound distinct from one another? Partly it is because different languages use different sets of sounds (in spoken languages) or signs (in signed languages) from one another. But it is also because those sounds and signs have different distributional patterns in each language. Phonology is the study of the systematic organization and patterning of sounds and signs. Students learn to describe the production of sounds and signs (articulatory phonetics), discuss restrictions on sound and sign distribution (morphemic alternation, phonotactics), and develop a model of the phonological grammar in terms of rules and representations. Throughout the course, we utilize datasets taken from a variety of the world’s languages. General Phonetics (Ling 220) or a B or higher in Introduction to Linguistics (Ling 110). **SO**

* **LING 235a, Phonology II** 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 Bowern
  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. Discussion of ethics, linguistic diversity, and endangerment, 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 243b / CGSC 243b, Dynamics of Speech** Jason Shaw and Michael Stern
  Systems that change over time, from particles to climates to stock markets, are often well described as Dynamical Systems. Speech, like many aspects of human behavior, involve action and perception components, which are mediated and related by the central nervous system. Each of these components unfolds over time according to laws, which can be formulated using dynamical systems theory. This class provides an introduction to the types of dynamical systems that have been proposed to describe and explain human speech behavior, including (1) articulatory kinematics, i.e., the movements of speech organs such as the tongue, lips, vocal folds, etc., (2) neural activity governing intention and control, and (3) auditory transduction and perception of speech sound waves. The course will make use of key concepts from calculus, particularly differential equations. Review of the necessary math will be provided in class. Most homework assignments will involve light coding in the Matlab environment. No previous experience with Matlab is required; however, we expect students to have some familiarity with basic coding concepts (functions, loops, variables, matrices). Please feel free to reach out to us if you have questions about preparation. **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. Secondarily, 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.

LING 254b, Syntax II  Jim Wood
This course continues the development of the "principles and parameters" approach to grammatical theory in Government-Binding theory and the Minimalist Program. We begin with a brief review of the architecture of syntactic theory, move on to an extended exploration of the mechanisms of dependency formation in syntax (including displacement, agreement, control, scope and anaphora), and conclude with a discussion of the nature of syntactic representation (constituency in double object constructions, the mapping between structure and thematic relations, the role of functional categories). Throughout, a major goal of the course is to engage in foundational issues by reading primary literature in syntax and applying theoretical concepts to novel data. Prerequisite: LING 253.

LING 263a, Semantics I  Simon Charlow
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. Prerequisites: One course in linguistics, philosophy of language, logic, computer science or permission of instructor.

LING 264b, Semantics II  Veneeta Dayal
The model-theoretic approach to semantics and its treatment of core linguistic phenomena. Topics include quantification; tense, aspect, and modality; context and interpretation; and the semantics-pragmatics interface. Prerequisite: LING 263 or permission of instructor.

LING 271b / PHIL 271b, 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.

LING 280a, Morphology  Jim Wood
What is a word? Do the things we put spaces around when we write correspond to anything in our mental grammars? How does morphology relate to phonology, and to other areas of grammar, such as syntax and semantics? To what extent do the principles governing the structures and forms of words need to be boxed off from other areas of grammar, and to what extent are they symptomatic of deeper principles which
hold of the language faculty as a whole? This course aims to answer these and other
questions by examining morphological phenomena from across the world’s languages,
including English and languages which are (at least superficially) very different from
it. Prerequisites: LING 232 (Phonology I) and 253 (Syntax I), or permission of
instructor.  so

* LING 291b, Topics: Events, Distributivity, Durational Modifiers  Venetia Dayal
  and Simon Charlow
This course bridges introductory courses (LING 263, LING 264) and advanced
seminars in semantics. It explores selected topics in some detail, allowing students to
appreciate the nuances of semantic argumentation while at the same time emphasizing
the foundational issues involved. The goal of this course is to allow students, within a
structured format, to become comfortable engaging with open-ended problems and to
gain confidence in proposing original solutions to such problems. Topics vary across
semesters. Prerequisite: LING 263 / LING 663 or permission of Instructor  so

* LING 344b, Topics in Phonology: Prosody-Syntax Structure Correspondence
  Natalie Weber
This course explores how languages organize sounds into domains arranged within
a hierarchical structure. Research over the past 40 years has shown that this prosodic
structure often matches syntactic and syllabic structure, but mismatches can arise
due to phonological pressures and restructuring. We examine several theories of the
relationship between syntactic and prosodic structure by discussing primary literature
and data from a range of languages. The course culminates in an original research
paper on a topic chosen by the student. Prerequisites: LING 232 and LING 253, or
permission of instructor. Ling 235 is recommended, but not required.  wr, so

* LING 352b, Tocharian  Claire Bowern
Study of Tocharian B language, an ancient language of what is now Western China,
in its historical and material context. Students learn to read the language and the place
of Tocharian within the Indo-European family. Tocharian was spoken in the Tarim
Basin and is known from texts dating from roughly the 4th to 8th Centuries. We will
study the writing system, sound system, and grammar (morphology and syntax). After
finishing this class, students will have read a number of original works in Tocharian
and be familiar with the grammar of the language and how it relates to other languages
in the family and region. None, though some familiarity with an ancient or (non-
English) Indo-European language would be helpful.  hu

* LING 375a / CGSC 375a / PSYC 375a, Linguistic Meaning and Conceptual
  Structure  Maria Pinango
The meaning of a word or sentence is something in the human mind that has
specific properties: it can be expressed (written/signed/spoken forms); it can be
combined with other meanings; its expression is not language dependent; it connects
with the world; it serves as a vehicle for inference; and it is hidden from awareness.
The course explores these properties in some detail and, in the process, provides
the students with technical vocabulary and analytical tools to further investigate
them. The course is thus intended for those students interested in undertaking a
research project on the structure of meaning. the nature of lexico-conceptual structure,
that is, the structure of concepts which we refer to as “word meanings”, and how
they may be combined through linguistic and non-linguistic means. Its ultimate
objective is to bridge models of conceptual structure and models of linguistic semantic
composition, identify their respective strengths and weaknesses and explore some of the fundamental questions that any theory of linguistic meaning composition must answer. Evidence discussed will emerge from naturalistic, introspectional, and experimental methodologies. Prerequisites: LING 110, CGSC 110, LING 217, or LING 263.

* LING 376b / PHIL 445b, Implicature and Pragmatic Theory  Laurence Horn
This seminar explores theoretical and experimental approaches to conversational implicature, focusing on scalar implicature (whose 50th anniversary falls in 2022). We examine the role that pragmatic inference plays in the determination of what is said and of the delineation of at-issue and non-at-issue content within neo-Gricean pragmatics and competing theories. Readings, presentations, and discussion draw on the available evidence from linguistic diagnostics, corpora, and especially a range of experimental studies on the acquisition, processing, and diversity of scalar implicature, negative strengthening, and exhaustivity in focus constructions. In particular, we review current work on the effects of discourse context, politeness and "face" considerations, and lexical semantics in constraining when and how pragmatic inferences are—and aren’t—drawn. Another focus is on the explosion of recent work re-examining the role played by scalar implicature and other factors in the universal resistance to the lexicalization of concepts corresponding to *nall (= ‘not all’), *nand (= ‘or not’), and *noth (= ‘not both’) vis-à-vis none, nor, neither. We also consider the application of the what is said/what is implicated distinction to the characterization of lying vs. misleading in and out of the courtroom. Time and interest permitting, we also touch on recent developments in rational speech act theory and intention- vs. commitment-based approaches to assertion and implicature. Our goal in this seminar is to explore the landscape of scalar implicature, and conversational implicature more generally, and to develop the empirical tools for investigating this landscape. Prerequisite: At least one course in semantics, pragmatics, or philosophy of language; or permission of instructor. SO RP

* LING 377b, Topics in Syntax: Intensifiers and Degree Phrases  Jim Wood
In this course, we take a detailed look at our current understanding of an area of natural language syntax and open questions in that area. This semester, we focus on the syntax of degree expressions and the nebulous category of intensifiers. We examine evaluative readings of intensifiers, cross-linguistic/cross-dialectal variation in co-occurrence restrictions in the degree phrase, and the syntax of comparative and superlative constructions. LING 253 Syntax I, or equivalent experience

* LING 380a, 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). QR, SO

LING 384b, Computational Psycholinguistics  Tom McCoy
When processing language, the human mind can perform remarkable feats. For instance, we can acquire a language from a small amount of data - thousands of times less data than current systems in artificial intelligence - and we can infer what another
person means even when that person’s intended message goes beyond the literal
meaning of their words. This course explores how computational modeling can help us
characterize our incredible capacity for language learning and processing. We focus on
three modeling traditions - symbolic algorithms, Bayesian models, and neural networks-
and their application to a range of psycholinguistic phenomena, including parsing,
pragmatics, speech perception, word learning, and language acquisition. We also
discuss how artificial intelligence can inform theories of human language processing
and vice versa. Prerequisites: One prior course in Linguistics, or permission of the
instructor and Familiarity with Python programming, or permission of the instructor
QR, SO

* LING 393a, Topics: Dynamic Semantics  Simon Charlow
Dynamic aspects of meaning have recently been reconceptualized in analogy with the
’side effects’ of programming languages. As these theories gained ground, a robust
dissenting literature offered counter-programming. Was dynamic semantics really
necessary to treat the phenomena in question, or could they be handled satisfactorily in
a more austere, truth-conditional setting? This seminar provides in-depth exploration
of issues in natural language meaning, with topics varying in different semesters. One
goal of this course is to become conversant with the literature on dynamics, to learn
about different dynamic frameworks. Another goal is to develop an understanding of
what it means for a semantic theory to be dynamic.  Prerequisite: LING 263/LING
663 or permission of the instructor  SO

* LING 396a / LING 796a, Semantic Investigations in an Unfamiliar Language
Veneeta Dayal
This course introduces students to semantic fieldwork. It chooses a language that is
likely not known to any student in the class and has no substantive semantic literature.
Students are introduced to a phenomenon in the language on which there is some
syntactic literature, either in that language or in one or more related language. This
provides a starting point for students to articulate questions to investigate that are
primarily semantic nature. Working with a native speaker consultant, students elicit
data that answer these initial questions but very likely lead to further questions to
investigate. To keep the elicitation focused, these investigations are restricted to
topics related to the primary phenomenon discussed, while allowing some margin for
individual interests. In addition to the syntactic and semantic literature on the chosen
topic or topics, students also read material on fieldwork methodologies for linguistics
generally as well as those specifically for semantics. Students work in small groups to
fulfill part of the requirements. The language to be investigated is Indonesian. The
topic that we will focus on is the morpho-syntax and semantics of number distinctions.
Prerequisites: LING 253, LING 263 or permission of the instructor  SO

* LING 471a or b, Special Projects  Claire Bowern
Special projects set up by students with the help of a faculty adviser and the director
of undergraduate studies to cover material not otherwise offered by the department.
The project must terminate with at least a term paper or its equivalent and must have
the approval of the director of undergraduate studies. Only one term may be offered
toward the major; two terms may be offered toward the bachelor’s degree.

* LING 490a, Research Methods in Linguistics  Raffaella Zanuttini
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  Jason Shaw
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.